SERVICE MANUAL

SD155 / SD255

marantz®

model SD155/SD255

Stereo Cassette Deck

SERVICE MANUAL

This service manual explains them by extracting the different specifications from those of the SD255, based on the SD255. For both electrical and mechanical information on the after-sales service which is not stated, all information is described in the SD255 service manual. The dispatch of the parts for after-sales service has to be referred to this service manual, with the first priority.
For this reason, please use this service manual with referring to the SD255 service manual, without fail.

Different Parts between MODEL SD255 and MODEL SD275

Page	REF. DESIG.	SD255	SD275	DESCRIPTION
18	A	261T248400	282T248400	Front Panel Assembly
	001B	260T248030	282T248010	Front Panel
	021B	260T303010	282T303010	Mask, LED Meter
	004C	260T053010	282T053010	Cover, Cassette Holder (A)
	005C	260T053020	282T053020	Cover, Cassette Holder (B)
	006C	177T158020	282T158010	Window, Cassette Cover
19	003D	51260408U0	51706009U0	Spec Set Screw
	001E	261T250020	282T250010	Rear Panel [N, A]
		261T250030	282T250020	Rear Panel [E]
20	001S	261T801020	282T801010	Packing Case [N, A]
		261T801030	282T801020	Packing Case [E]
	004S	260T809020	260T807010	Reinforce
	006S	9014323160	9014316230	Polyethylene Bag
	001T	261T851310	282T851310	User Manual
	002T	261T851320	282T851320	User Manual, Spec
	003T	261T856010	282T856010	Circuit Diagram
	J011	———	YJ04001240	Jack, AC Plug Adaptor
27	CG03	———	DD15101300	Ceramic 100pF ±5% 50V
	CG04	———	DD15101300	Ceramic 100pF ±5% 50V
	CJ13	———	DF15471350	Film 470pF ±5% 50V
	CJ14	———	DF15471350	Film 470pF ±5% 50V
	RG13	———	NK05101010	100Ω, ±5% 1W Metal
	RJ13	RA04720600	RA02230600	22KΩ, Trimming (L) P.B. Level
	RJ14	RA04720600	RA02230600	22KΩ, Trimming (R) P.B. Level
	RJ15	RA04720600	RA02230600	22KΩ, Trimming (L) P.B. Level
	RJ16	RA04720600	RA02230600	22KΩ, Trimming (R) P.B. Level
	RK01	RA04730600	RA02230600	22KΩ, Trimming
	RK02	RA04730600	RA02230600	22KΩ, Trimming
	RL07	RA04730600	RA01040600	100KΩ, Trimming (L) Bias
	RL08	RA04730600	RA01040600	100KΩ, Trimming (R) Bias

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Page	REF. DESIG.	SD255	SD275	DESCRIPTION
27	DM25	————	HD20015210	Diode 1SS133
	DM26	————	HD20015210	Diode 1SS133
28	DT08	————	HD30002000	Zener MA1309M
	QM01	HT205072A0	HT106842C0	Transistor 2SA684 (R, S)
	QM10	HT205072A0	HT106842C0	Transistor 2SA684 (R, S)
	J601	————	YJ06002460	Jack, 7P
	J602	————	YJ06002460	Jack, 7P
29	JW02	YT02040550	YT02040620	Terminal, RCA Jack IN/OUT
	CW51	————	DK18103310	Ceramic 0.01μF 50V

"SERVICE INFORMATION IS FOR USE BY QUALIFIED RERSONNEL ONLY – ANY MISADJUSTMENT OR MISALIGNMENT MAY BE TREATED AS A NON-WARRANTY REPAIR BY ANY MARANTZ SERVICE CENTRE – "

Kind of Common Parts

RESISTOR

R*** (1) GD05 - - - 140, Carbon film fixed resistor, ±5% 1/4W
R*** (2) GD05 - - - 160, Carbon film fixed resistor, ±5% 1/6W

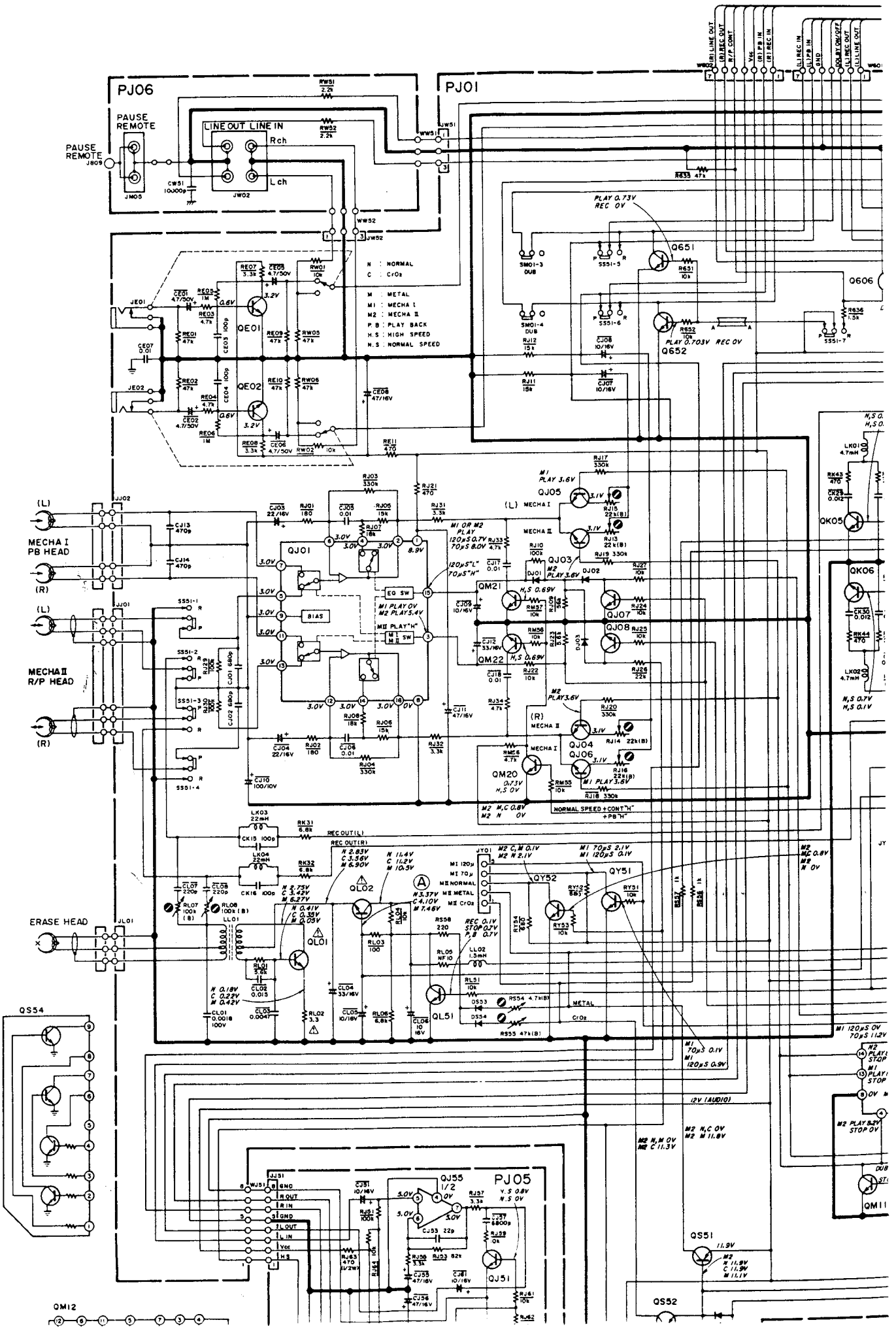
C*** : **CERAMIC CAP.**
(1) DD1 - - - - 370, Ceramic condenser, disc type (titan condenser) Temp. coeff. P350 ~ N1000 50V

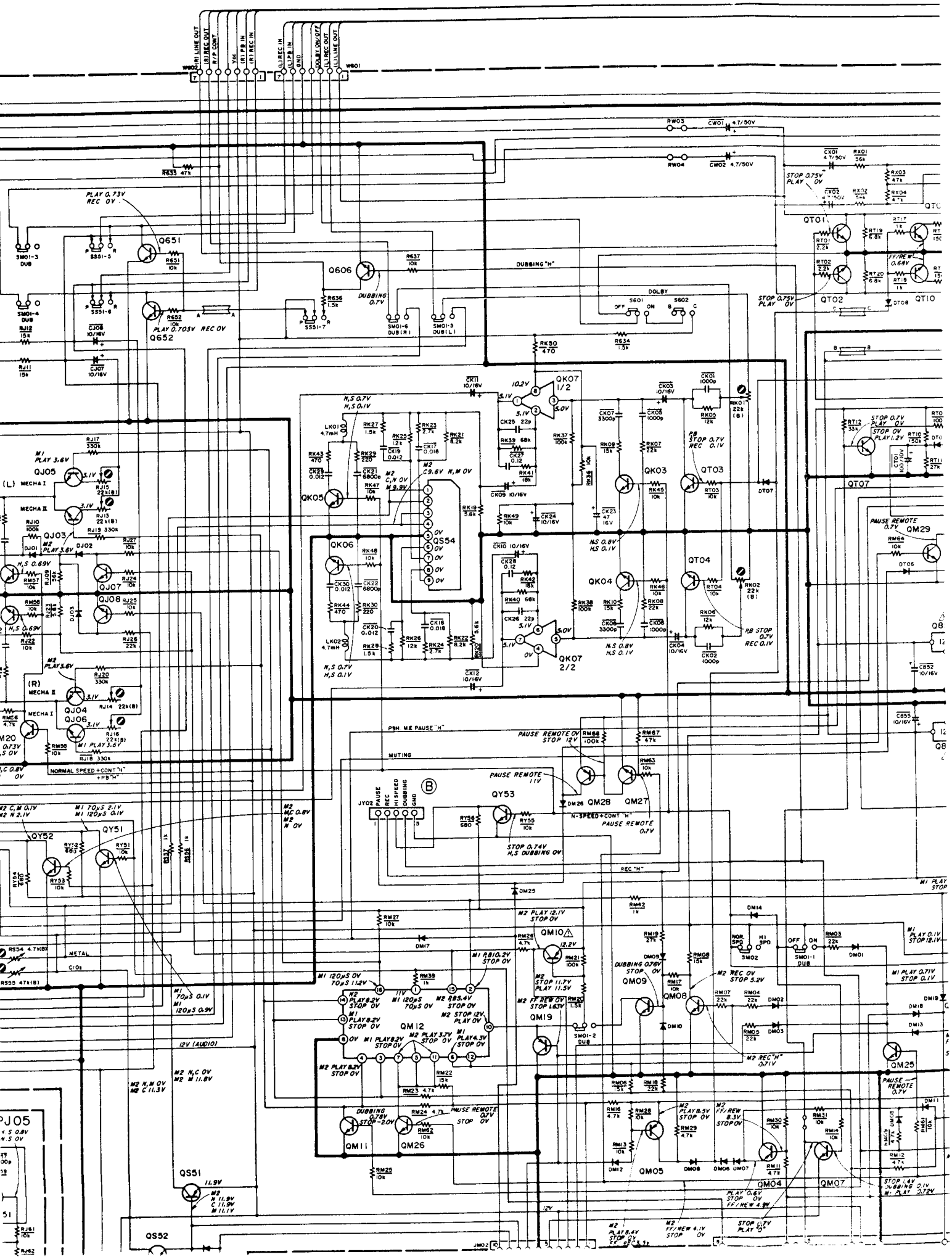
C*** : **CERAMIC CAP.**
(1) DK16 - - - 300, High dielectric constant ceramic condenser, disc type (titan variable) Temp. chara. 2B4 50V

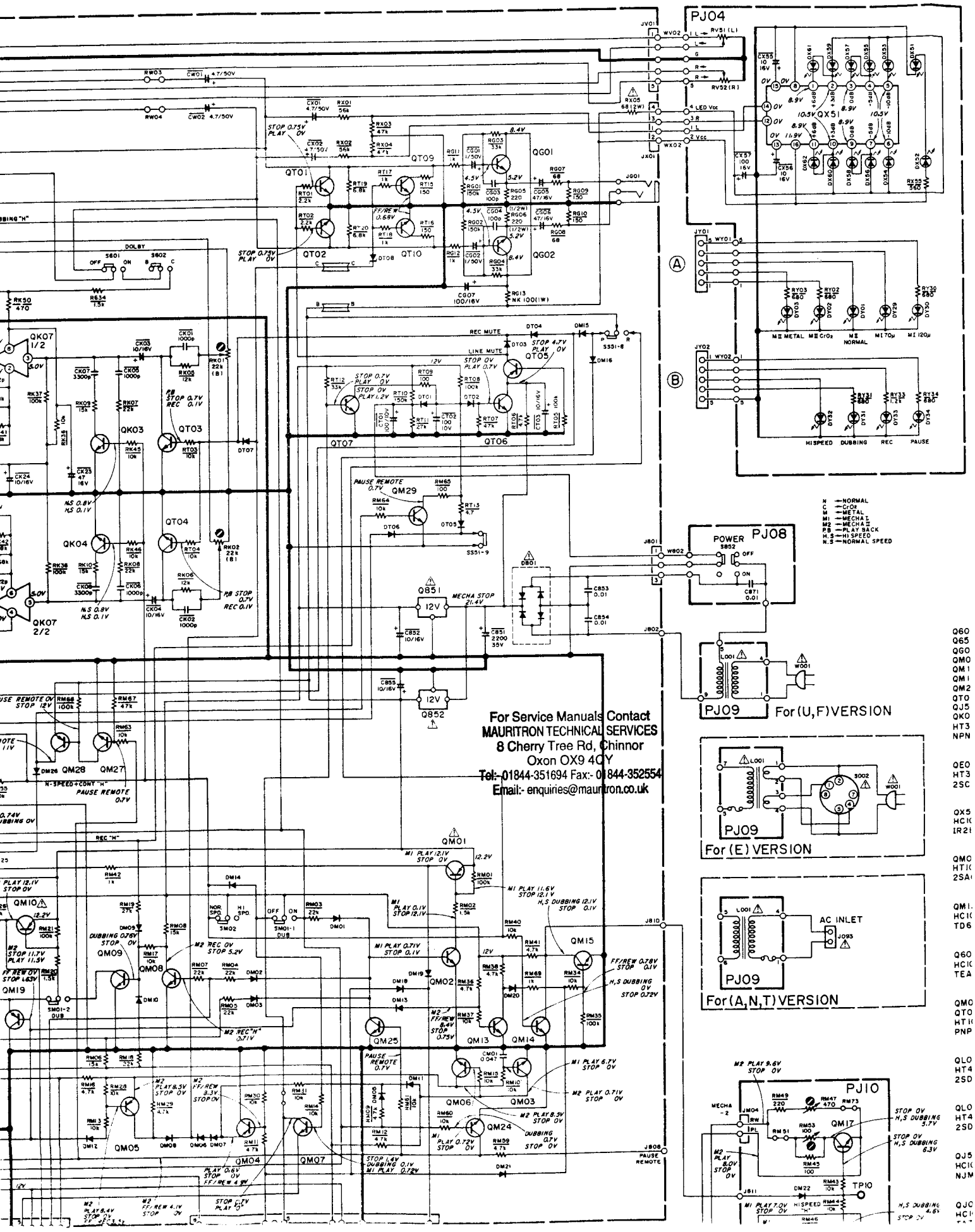
C*** : **ELECTROLY CAP. (≠) / FILM CAP. (≒)**
(1) EA - - - - - 10, Electrolytic condenser, one-way lead type, tolerance ±20%
(2) DF15 - - - 350, Plastic film condenser, one-way type, Mylar, ±5% 50V

* In case of ordering the common parts, please establish the correct parts number of 10 figures by the procedure "ASSIGNMENT OF COMMON PARTS CODES"

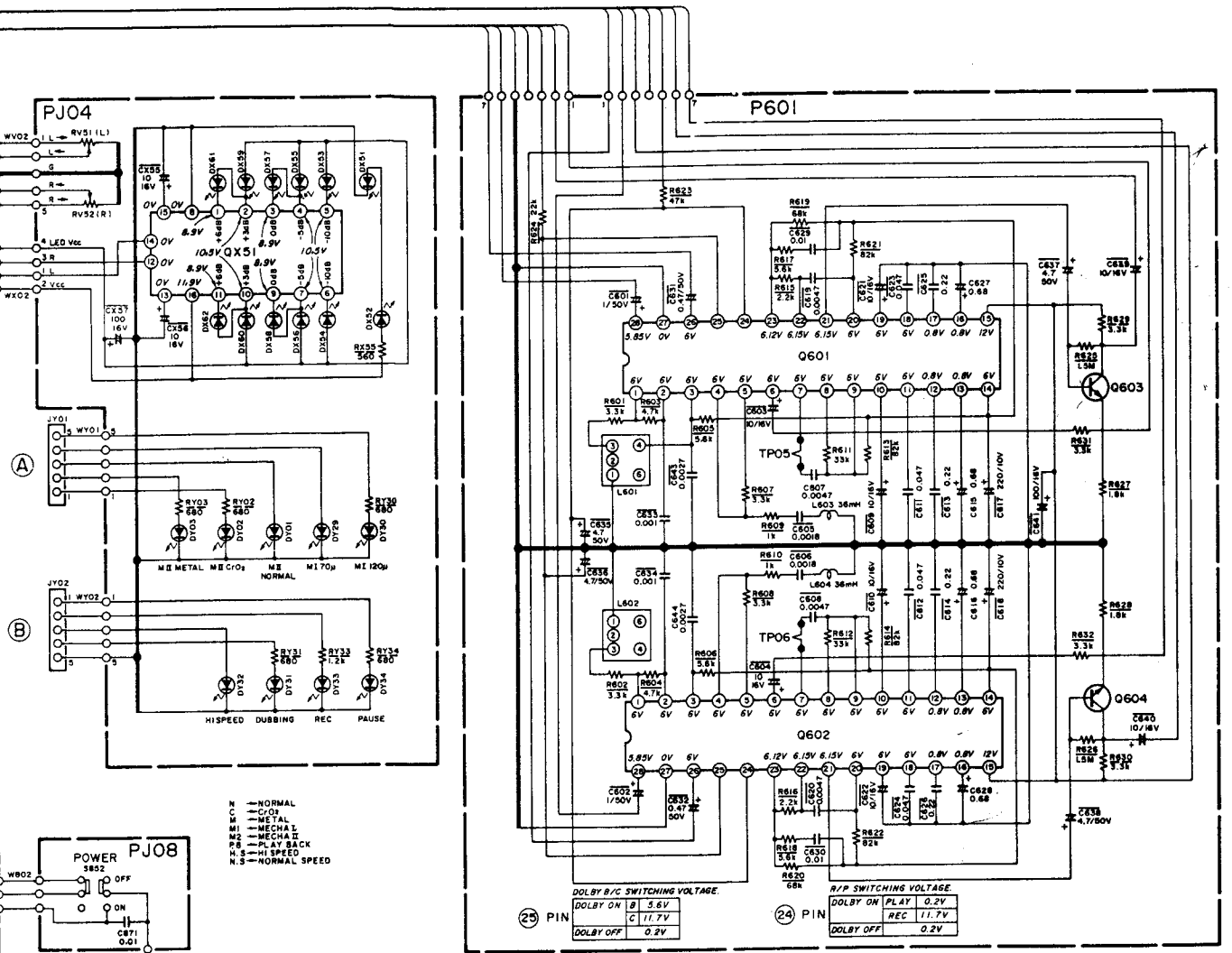
SCHEMATIC DIAGRAM

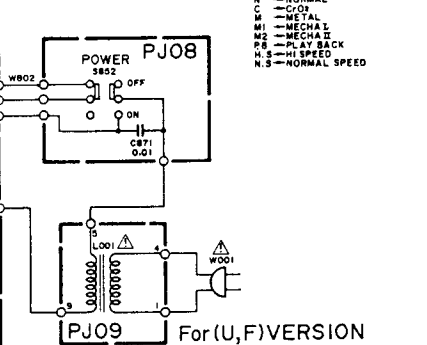


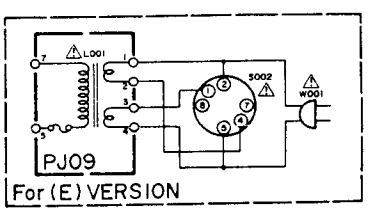

(R) LINE OUT
(R) REC OUT
M/P CONT
Vcc
(R) PB IN
(R) REC IN
(L) REC IN
(L) PB IN
GND
DOLBY ON/OFF
(L) REC OUT
(L) LINE OUT
W602
W601
Q651
Q652
Q606
DUBBING "H"
DOLBY
QT01
QT02
QT03
QT04
QT07
QT10
QK03
QK04
QK05
QK06
QK07 1/2
QK07 2/2
QS54
QJ03
QJ04
QJ05
QJ06
QJ07
QJ08
QY51
QY52
QY53
QM10
QM11
QM12
QM19
QM25
QM26
QM27
QM28
QM29
QS51
QS52
MECHA I
MECHA II
NORMAL SPEED + CONT "H" + PB "H"
PBH, ME PAUSE "H"
MUTING
REC "H"
N-SPEED + CONT "H"
PAUSE REMOTE
METAL
12V (AUDIO)

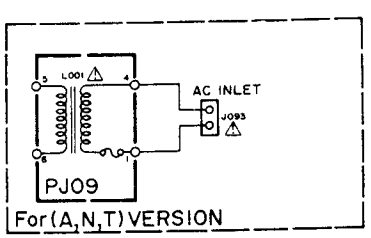

PJ04
PJ08
POWER
PJ09
For (U,F) VERSION
For (E) VERSION
For (A,N,T) VERSION
AC INLET
PJ10
QX51
QK07 1/2
QK07 2/2
QK03
QK04
QT01
QT02
QT03
QT04
QT05
QT06
QT07
QT08
QT09
QT10
QG01
QG02
QM01
QM02
QM03
QM04
QM05
QM06
QM07
QM08
QM09
QM10
QM13
QM14
QM15
QM17
QM19
QM24
QM25
QM27
QM28
QM29
Q851
Q852
DB01
LINE MUTE
REC MUTE
PAUSE REMOTE
MECHA STOP
STOP 0.7V PLAY 0V
M1 METAL
M2 CrO2
M2 NORMAL
M1 70μ
M1 120μ
HISPEED
DUBBING
REC
PAUSE
For Service Manuals Contact
MAURITRON TECHNICAL SERVICES
8 Cherry Tree Rd, Chinnor
Oxon OX9 4QY
Tel:- 01844-351694 Fax:- 01844-352554
Email:- enquiries@mauritron.co.uk

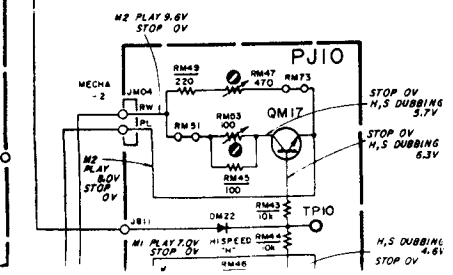
Model SD275











Q603, Q604, Q606
Q651, Q652, QG01
QG02, QM02, QM03
QM06～QM09, QM11
QM13～QM15, QM17
QM18, QM20～QM22
QM24～QM27, QL51
QT06, QT07, QT09, QT10
QJ51, QJ52, QJ03～QJ08
QK03～QK06, QY51～QY53
HT30001000 QT01～QT04
NPN TRANSISTOR

QE01, QE02
HT32784IU0
2SC2784 (U)

QX51
HC10006320
IR2E27A

QM01, QM10
HT106842C0
2SA684 (R,S)

QM12
HC10052050
TD62504P

Q601, Q602
HC10003490
TEA0665

QM04, QM05, QM19, QM28
QT05, QS51～QS53
HT10001000
PNP TRANSISTOR

QL01
HT40471IK0
2SD471 (K)

QL02
HT40313IE0
2SD313 (E)

QJ55, QK07
HC10003090
NJM4558D

QJ01
HC10109050

DM01～DM03, DM05～DM17
DM20～DM26, DT02～DT07
DJ01～DJ03, DS53, DS54
HD20015210
1SS133

DT01, DS51, DS52
HD10004020
Ge DIODE

DM18, DM19
HD20016210
ISR35-200

DX59～DX62
HI10062020
LN217RPH (RED)

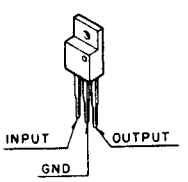
DX51～DX58
HI10063020
LN317GPH (GRN)

DY01～DY03
DY29～DY32, DY34
HI10038320
GL-9PG24 (GRN)

DY33
HI10032320
GL-9PR24 (RED)

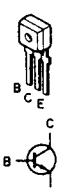
D801
HD20027080
RB-152

DT08
HD30002020
MA1039M

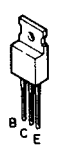


NJM78M12

2SD471 (K)

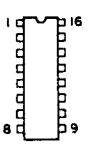


2SC2784 (U)



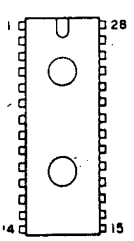
2SD313 (E) 2SA684 (R,S)

TOP VIEW



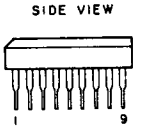
TD62504P

TOP VIEW



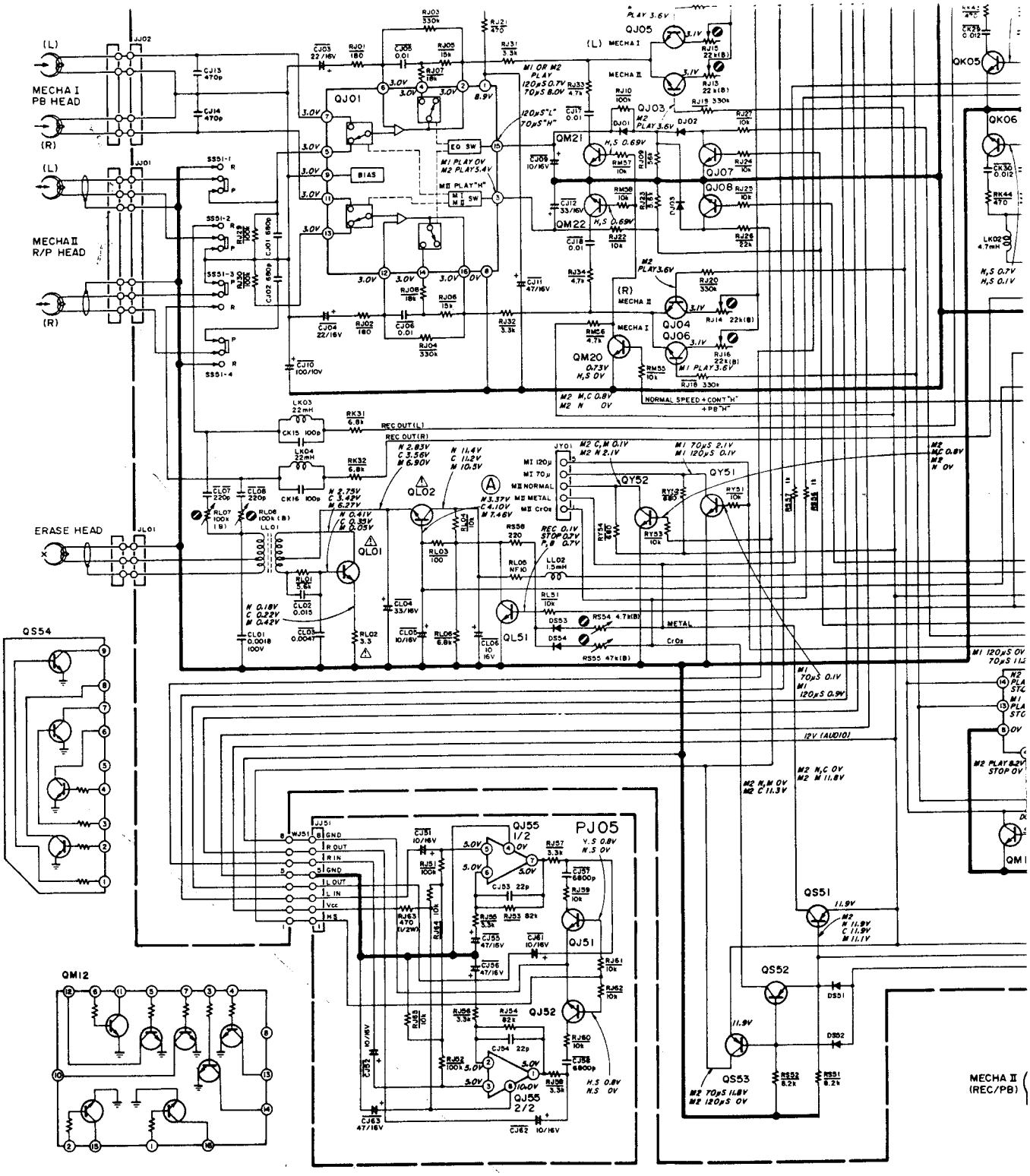
TEA0665

SIDE VIEW



TD62554S

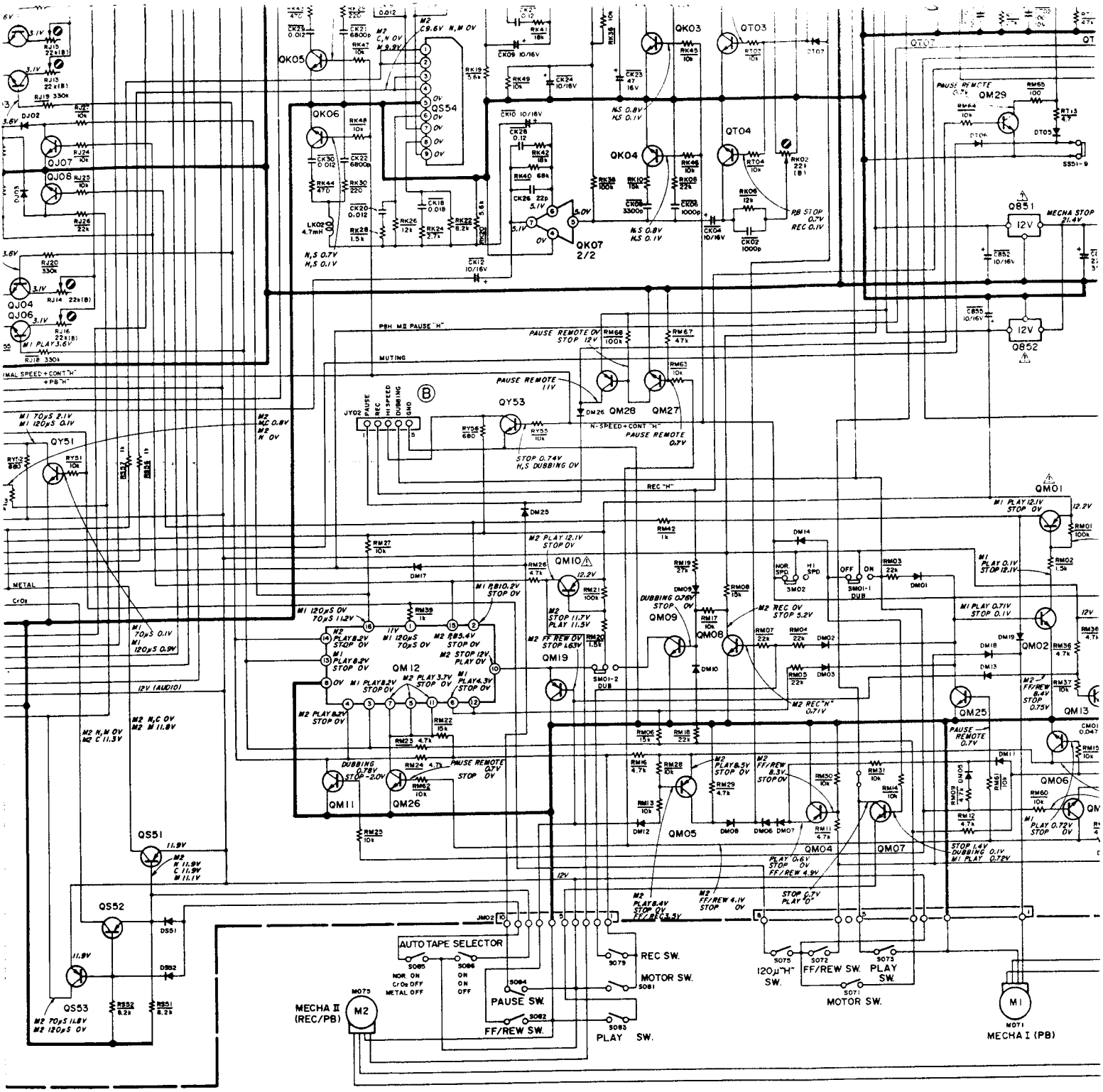
TOP VIEW SIDE VIEW



L601	LS10440010	
L602	LS10440010	
S601	SP02010630	
S602	SP02010630	
RM47	RA01010600	
RM48	RA01010600	
RM53	RA01010600	
RM54	RA01010600	
SM01	SP06010140	
SM02	SP02010630	
LL01	TC10140300	
RL07	RA04730600	
RL08	RA04730600	
RJ13	RA04720600	
RJ14	RA04720600	
RJ15	RA04720600	
RJ16	RA04720600	
L001	TS14820180	
L001	TS14820190	
L001	TS14820170	

NOTE ON SAFETY :

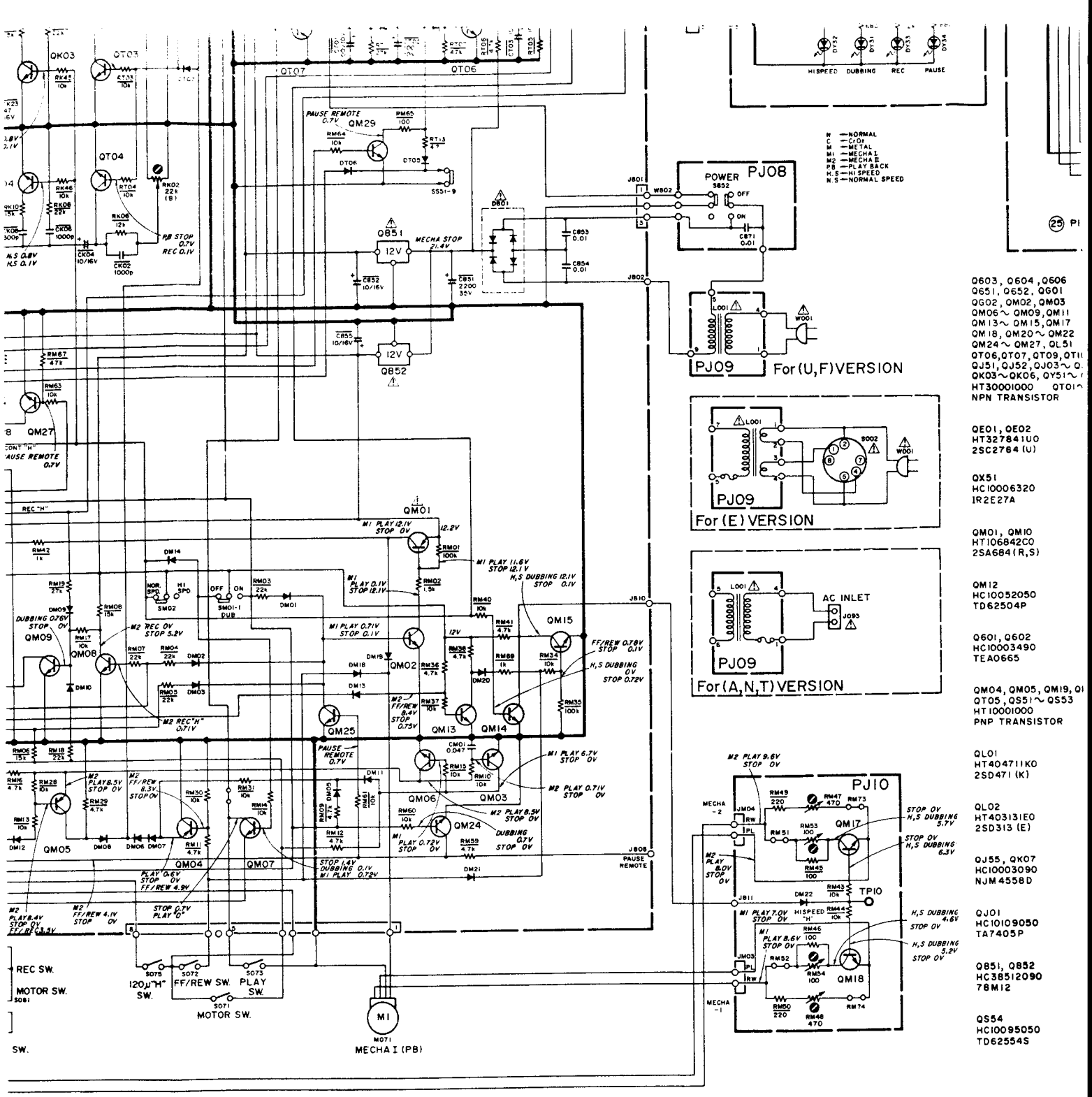
Symbol ⚠ Fire or electrical shock hazard. Only original parts should be used to replace any part marked with symbol ⚠. Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.



L601	LS10440010	M.P.X. COIL
L602	LS10440010	M.P.X. COIL
S601	SP02010630	PUSH SWITCH DOLBY ON/OFF
S602	SP02010630	PUSH SWITCH DOLBY B/C
RM47	RA01010600	TRIMMING 100Ω
RM48	RA01010600	TRIMMING 100Ω
RM53	RA01010600	TRIMMING 100Ω
RM54	RA01010600	TRIMMING 100Ω
SM01	SP06010140	PUSH SWITCH SYNCHRO START
SM02	SP02010630	PUSH SWITCH SPEED/DUBBING
LL01	TC10140300	OSC TRANSF. 105kHz
RL07	RA04730600	TRIMMING 47KΩ
RL08	RA04730600	TRIMMING 47KΩ
RJ13	RA04720600	TRIMMING 4.7KΩ
RJ14	RA04720600	TRIMMING 4.7KΩ
RJ15	RA04720600	TRIMMING 4.7KΩ
RJ16	RA04720600	TRIMMING 4.7KΩ
L001	TS14820180	POWER TRANSF. [N, A]
L001	TS14820190	POWER TRANSF. [E, P]
L001	TS14820170	POWER TRANSF. [U]

S852	SP02010960	PUSH SWITCH POWER
RK01	RA04730600	TRIMMING 47KΩ
RK02	RA04730600	TRIMMING 47KΩ
SS51	SS09020180	SLIDE SWITCH REC/PLAY
RS54	RA04720600	TRIMMING 4.7KΩ
RS55	RA04730600	TRIMMING 47KΩ
RV51	RX05030240	VARIABLE 50KΩ REC LEVEL (L)
RV52	RX05030240	VARIABLE 50KΩ REC LEVEL (R)
024B	260T052010	COUNTER
032F	316Y264030	BELT COUNTER
H071	LH42821050	HEAD REC/PLAY
H072	LH39000030	HEAD ERASE
M071	MM11205100	D.C. MOTOR
S071	SM01011190	MINI SWITCH MOTOR
S072	SM01011160	MINI SWITCH FF/REW
S073	SM01011190	MINI SWITCH PLAY MUTE
S075	SM01011300	MINI SWITCH SELECTOR

/ original parts
th symbol ⚠.
than original
shock hazard.



Q603, Q604, Q606
Q651, Q652, QG01
QG02, QM02, QM03
QM06～QM09, QM11
QM13～QM15, QM17
QM18, QM20～QM22
QM24～QM27, QL51
QT06, QT07, QT09, QTI
QJ51, QJ52, QJ03～Q
QK03～QK06, QY51～
HT30001000 QT01
NPN TRANSISTOR

QE01, QE02
HT327841U0
2SC2784 (U)

QX51
HC10006320
IR2E27A

QM01, QM10
HT106842C0
2SA684 (R,S)

QM12
HC10052050
TD62504P

Q601, Q602
HC10003490
TEA0665

QM04, QM05, QM19, Q
QT05, QS51～QS53
HT10001000
PNP TRANSISTOR

QL01
HT404711K0
2SD471 (K)

QL02
HT403131E0
2SD313 (E)

QJ55, QK07
HC10003090
NJM4558D

QJ01
HC10109050
TA7405P

Q851, Q852
HC38512090
78M12

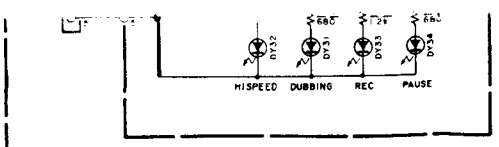
QS54
HC10095050
TD62554S

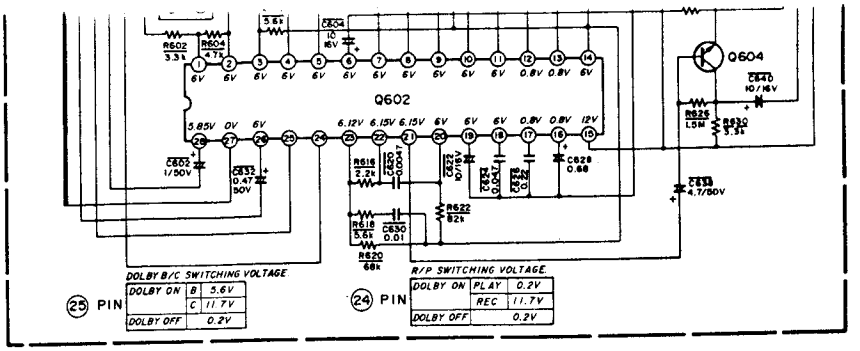
S852	SP02010960	PUSH SWITCH POWER
RK01	RA04730600	TRIMMING 47KΩ
RK02	RA04730600	TRIMMING 47KΩ
SS51	SS09020180	SLIDE SWITCH REC/PLAY
RS54	RA04720600	TRIMMING 4.7KΩ
RS55	RA04730600	TRIMMING 47KΩ
RV51	RX05030240	VARIABLE 50KΩ REC LEVEL (L)
RV52	RX05030240	VARIABLE 50KΩ REC LEVEL (R)
024B	260T052010	COUNTER
032F	316Y264030	BELT COUNTER
H071	LH42821050	HEAD REC/PLAY
H072	LH39000030	HEAD ERASE
M071	MM11205100	D.C. MOTOR
S071	SM01011190	MINI SWITCH MOTOR
S072	SM01011160	MINI SWITCH FF/REW
S073	SM01011190	MINI SWITCH PLAY MUTE
S075	SM01011300	MINI SWITCH SELECTOR

055M	252T354110	LEVER PINCH ROLLER
106M	161T117210	SPINDLE TAKE UP
110M	161T117200	SPINDLE SUPPLY
156M	252T264110	BELT AUTO STOP
230M	185T264200	BELT MAIN
231M	185T264210	BELT F/R
H075	LH42821050	HEAD REC/PLAY
H076	LH31000580	HEAD ERASE
M075	MM11205100	D.C. MOTOR
S079	SM01011020	MINI SWITCH REC
S081	SM01011190	MINI SWITCH MOTOR
S082	SM01011160	MINI SWITCH FF/REW
S083	SM01011190	MINI SWITCH PLAY MUTE
S084	SM01011190	MINI SWITCH PAUSE
S085	SM01011300	MINI SWITCH SELECTOR CrO_2
S086	SM01011300	MINI SWITCH SELECTOR METAL

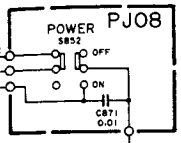
555M	252T354110
606M	161T117210
610M	161T117200
656M	252T264110
730M	185T264200
731M	185T264210

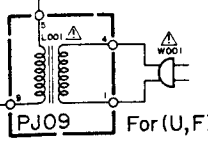
Components and wiring are s



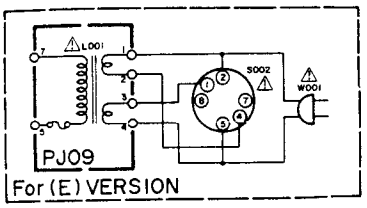


N —NORMAL
C —CrO2
M —METAL
M1 —MECHA I
M2 —MECHA II
PB —PLAY BACK
H.S —HI SPEED
N.S —NORMAL SPEED

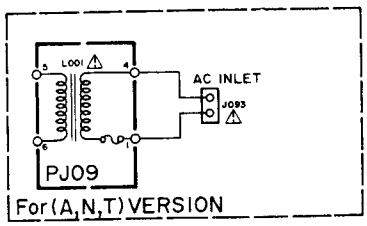




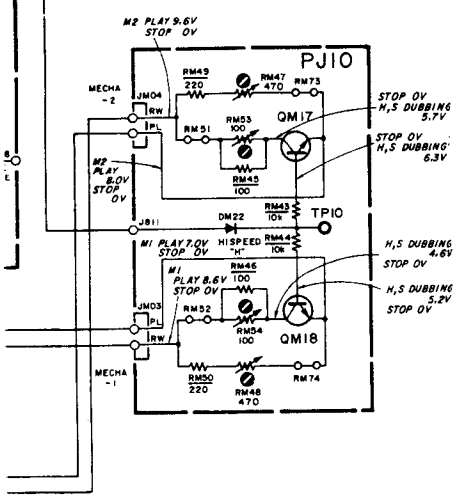
For (U,F) VERSION



For (E) VERSION



For (A,N,T) VERSION



Q603, Q604, Q606
Q651, Q652, Q601
Q602, QM02, QM03
QM06～QM09, QM11
QM13～QM15, QM17
QM18, QM20～QM22
QM24～QM27, QL51
QT06, QT07, QT09, QT10
QJ51, QJ52, QJ03～QJ08
QK03～QK06, QY51～QY53
HT30001000 QT01～QT04
NPN TRANSISTOR

QE01, QE02
HT32784100
2SC2784 (U)

QX51
HC10006320
IR2E27A

QM01, QM10
HT106842C0
2SA684 (R,S)

QM12
HC10052050
TD62504P

Q601, Q602
HC10003490
TEA0665

QM04, QM05, QM19, QM28
QT05, QS51～QS53
HT10001000
PNP TRANSISTOR

QL01
HT4047110
2SD471 (K)

QL02
HT4031310
2SD313 (E)

QJ55, QK07
HC10003090
NJM4558D

QJ01
HC10109050
TA7405P

Q851, Q852
HC38512090
78M12

QS54
HC10095050
TD62554S

DM01～DM03, DM05～DM17
DM20～DM26, DT02～DT07
DJ01～DJ03, DS53, DS54
HD20015210
1SS133

DT01, DS51, DS52
HD10004020
Ge DIODE

DM18, DM19
HD20016210
ISR35-200

DX59～DX62
HI10062020
LN217RPH (RED)

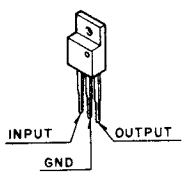
DX51～DX58
HI10063020
LN317GPH (GRN)

DY01～DY03
DY29～DY32, DY34
HI10038320
GL-9PG24 (GRN)

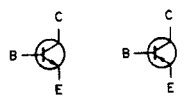
DY33
HI10032320
GL-9PR24 (RED)

D801
HD20027080
RB-152

DT08
HD30002020
MA1039M

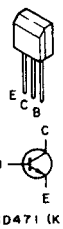


NJM78M12



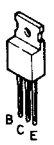
NPN TRANSISTOR

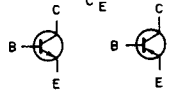
PNP TRANSISTOR



2SD471 (K)

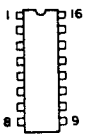
2SC2784 (U)





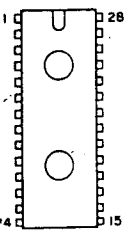
2SD313 (E) 2SA684 (R,S)

TOP VIEW



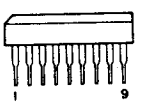
TD62504P

TOP VIEW



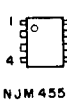
TEA0665

SIDE VIEW



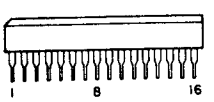
TD62554S

TOP VIEW



NJM4558D

SIDE VIEW



TA7405P

EVER PINCH ROLLER	555M	252T354110	LEVER PINCH ARM ASS'Y.
PINDLE TAKE UP	606M	161T117210	SPINDLE REEL TAKE UP
PINDLE SUPPLY	610M	161T117200	SPINDLE REEL SUPPLY
ELT AUTO STOP	656M	252T264110	BELT AUTO STOP
ELT MAIN	730M	185T264200	BELT MAIN
ELT F/R	731M	185T264210	BELT F/R

IEAD REC/PLAY
IEAD ERASE
).C. MOTOR
1INI SWITCH REC
1INI SWITCH MOTOR
1INI SWITCH FF/REW
1INI SWITCH PLAY MUTF
1INI SWITCH PAUSE
1INI SWITCH SELECTOR CrO_2
1INI SWITCH SELECTOR METAL

Components and wiring are subject to change for modification without notice.

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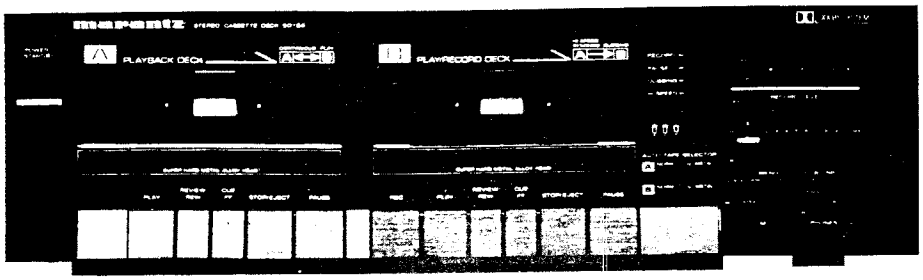
How to use this service manual

- The "Common parts" which Marantz Japan, Inc. has established are eliminated from this service manual.
- These "Common parts" are applied to all models in the service manuals arranged and issued by MJI.
- To indicate clearly the common parts in the schematic diagram, a line is drawn above or under the Ref. Desig. No. of applicable parts.
- "Common parts" can be supplied from the Marantz service center as ever.
  In case of ordering, please establish the parts number of 10 figures following the procedure mentioned in this service manual "How to establish the parts number for common parts".

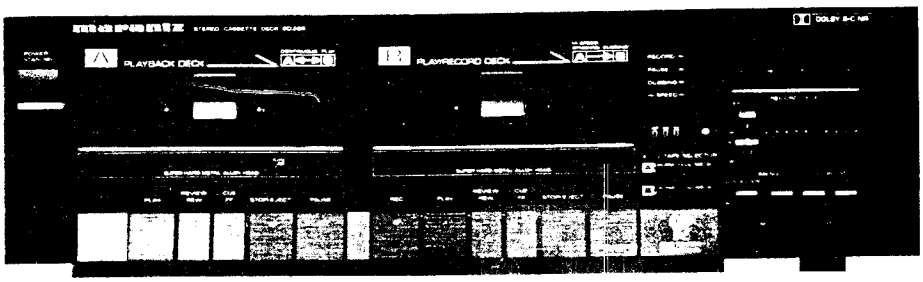
(NOTE)
When you order parts to the Marantz parts center, please take notice of the following points.

1) Please correctly write the parts number of 10 figures following the rule.
2) Since ordering parts by the Ref. Desig. No. or ratings indicated in the schematic diagram does not satisfy the above conditions, the Marantz parts supply system does not work properly.
   As this case is apt to cause a trouble, please pay attention to it.

MARANTZ MODEL SD155/SD255 STEREO CASSETTE DECK



Model SD155



Model SD255

INTRODUCTION

This service manual are prepared for use by Authorized Warranty Station and contains service information for Marantz Model SD155/SD255 Stereo Cassette Deck.

Servicing information and voltage data included in this manual are intended for use by the knowledgeable and experienced technician only. All instructions should be read carefully. No attempt should be made to proceed without a good understanding of the operation of the Cassette Deck.

The parts list furnishes information by which replacement parts may be ordered from the Marantz Company. A simple description is included for parts which can be usually obtained through local suppliers.

For Service Manuals Contact
MAURITRON TECHNICAL SERVICES
8 Cherry Tree Rd, Chinnor
Oxon OX9 4QY
Tel:- 01844-351694 Fax:- 01844-352554
Email:- enquiries@mauritron.co.uk

1. SHOCK, FIRE HAZARD SERVICE TEST:

CAUTION: After servicing this appliance and prior to returning to customer, measure the resistance between either primary AC cord connector pins (with unit NOT connected to AC mains and its Power switch ON), and the face or front Panel of product and controls and chassis bottom.

Any resistance measurement less than 1 Megohms should cause unit to be repaired or corrected before AC power is applied, and verified before return to user/customer.

Ref. UL Standard No. 1270. Para. 66. 3. D (Mandatory Test after servicing Electrical Appliances, effective 7-1-83).

2. P.W. BOARDS

As can seen from the circuit diagram, the chassis of your Cassette Deck consists of the following units. Each unit mounted on a printed circuit board is described within the square enclosed by a bold dotted line on the circuit diagram.

1. **Dolby . . . . . mounted on P.W. Board P601**
2. **Main . . . . . mounted on P.W. Board PJ01**
3. **Front LED . . . . . mounted on P.W. Board PJ04**
4. **Dubbing Flat Amp. . . . mounted on P.W. Board PJ05**
5. **RCA Jack . . . . . mounted on P.W. Board PJ06**
6. **Power SW PWB . . . . . mounted on P.W. Board PJ08**
7. **Transf. PWB . . . . . mounted on P.W. Board PJ09**
8. **Motor Speed ADJ . . . . mounted on P.W. Board PJ10**

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3. TEST EQUIPMENT REQUIRED FOR SERVICING

For measuring or checking your Cassette Deck, the following instruments and materials are necessary.

- Audio Oscillator (AF OSC)
- Attenuator (600 Ω)
- VTVM
- Distortion Meter
- Oscilloscope
- Bandpass Filter
- Wow and Flutter Meter
- Torque Meter (Cassette Type)
- Digital Frequency Counter
- Blank Tapes (Completely erased with bulk eraser)
  AC-212 (Normal)
  AC-512 (CrO_2)
  AC-712 (Metal)

NOTE:
If any doubt is noted in a measured value, use new tape.

- Test Tapes (New Tape)

TCC-111.MTT-111	Wow and Flutter, Tape Speed
TCC-140.MTT-112B	Signal-to-Noise Ratio
TCC-130.MTT-150	Adjustment of Output Level
TCC-161.MTT-256	Frequency Response (for Normal)
TCC-261.MTT-356	Frequency Response (for Special/ CrO_2 and Metal)
TCC-192.MTT-121	Cross Talk
TCC-194.MTT-141 (A-BEX) (TEAC)	Channel Separation

4. MECHANISM CONTROL CIRCUIT

Description of Circuit

Basically, this mechanism control circuit is configured to supply voltage (12V) in each mode by the switching of transistors (QM01 and QM10).

4.1 Relay play operation TAPE A⇌TAPE B

The motor switch (S071) is turned ON by TAPE A playback, voltage is applied to the base of QM01 through RM06, RM05, and DM03, and the base of QM01 becomes "low". QM01 is turned ON, 12V is supplied to the motor of TAPE A, the playback mode is selected, and playback "high" is output from TAPE A. QM06 is ON during TAPE A playback and the lines of S081 are "low" after RM16. Even if there is playback indication for TAPE B, pin (7) of QM12 remains "low" and the base of QM10 is high through RM21 as the interval between pins (7) and (10) of the transistor array is OFF. There is no rotation of the motor when QM10 is OFF.
The operation buttons are in the playback standby mode. When the TAPE A playback is completed, TAPE A is shut off automatically, the base of QM06 becomes "low", and QM06 is turned OFF.
The high voltage of S081 passes through RM22, and is applied to pin (7) of QM12. QM12 pin (10) becomes "low", QM08 is turned ON, the motor of TAPE B (M075), and the playback mode is selected.
At this time, QM03 is turned ON through RM16 and even if there is TAPE A playback indication (S071 turned ON) by setting it OFF through RM12, the motor of TAPE A (M071) does not rotate and the playback standby mode is selected.
The repetition of the above operation is repeat playback.

4.2 Synchronized dubbing operation (standard speed dubbing)

When the dubbing switch (SM01) is set to the dubbing mode, the dubbing high signal passes through RM03 and DM01 and turns QM02 ON. The base of QM01 becomes "low", QM01 is turned ON, and the motor of TAPE A starts rotating. Also, voltage of 12V is supplied to the base of QM09 through RM08 and RM17, QM09 is turned ON, the base of QM10 goes to "low", and QM10 is turned ON and the motor of TAPE B starts rotating.
Setting TAPE B to the recording mode (pressing the record button) turns the REC SW (S079) ON, voltage is supplied to the base QM08 through RM07, QM08 is turned ON, and QM09 is turned OFF. S079 is turned ON before P.B/Rec Slide SW (SS51) is switched. The base of QM10 is set to "high" through RM21, QM10 is set to OFF, and the motor (M075) does not rotate.
Next, setting TAPE A to the playback mode (pressing the playback button) turns S071 ON, voltage is applied to the base the base of QM19 through RM18 and DM10, and QM09 is turned ON. The base of QM10 goes to "low", QM10 is turned ON and the motor of TAPE B starts rotating.
The slide switch (SS51) is set and the REC mode selected. When TAPE A is dubbing, the normal motor is

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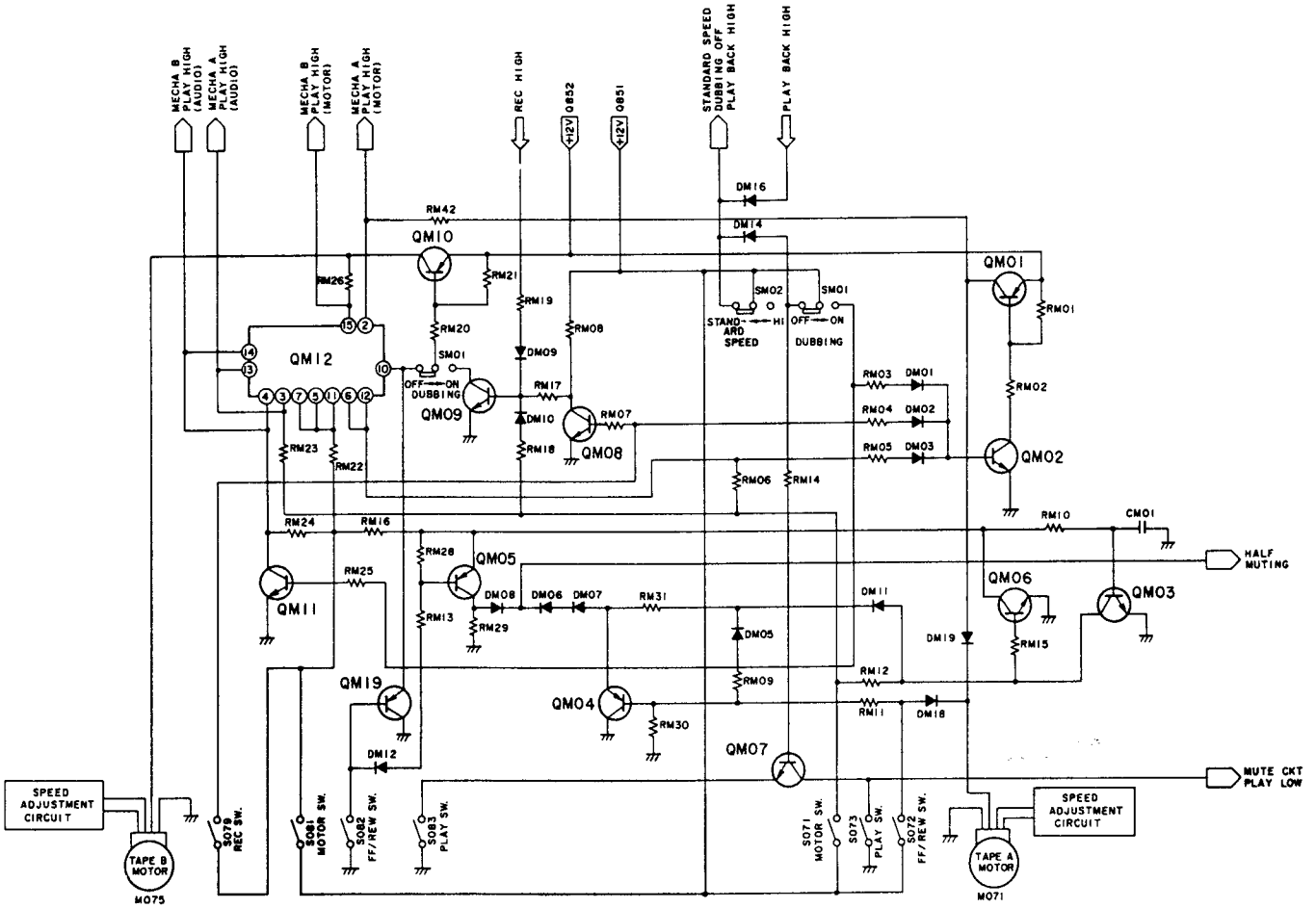
always activated in order to constantly apply voltage to the base of QM02 through RM03 and DM01. This is activated by setting the playback mode (pressing playback button). In other words, the synchronized dubbing mode is selected.

When the slide SW (SS51) for TAPE B is in the REC mode, REC "high" is generated, voltage is applied to RM19 and DM19 and QM09 is turned ON. TAPE B remains activated in the REC mode (muting mode) even when the playback of TAPE A ends.

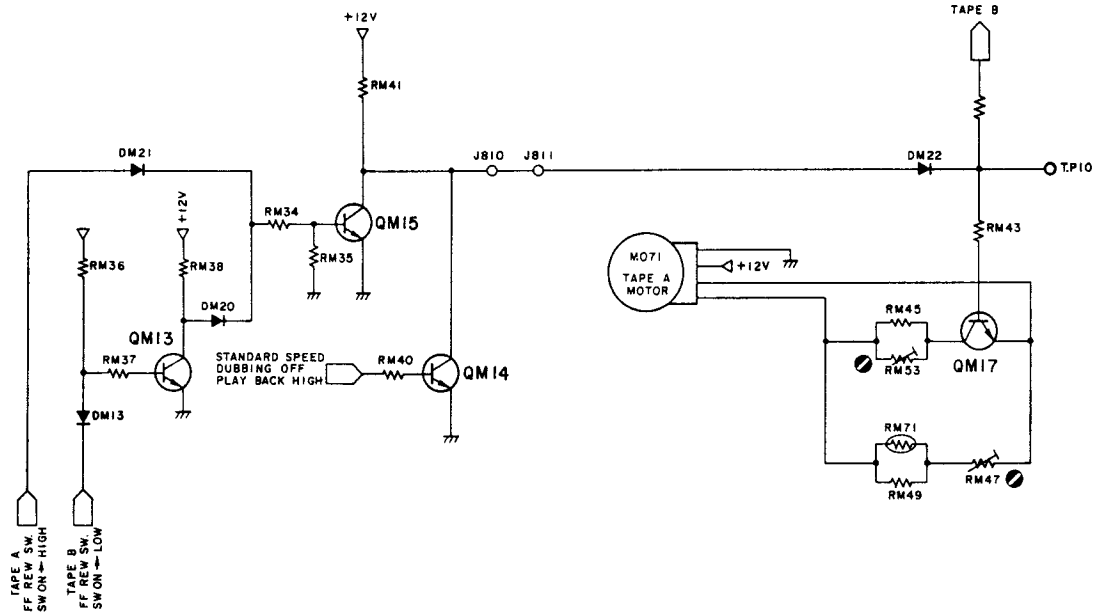


4.3 High speed dubbing operation

QM14 is the transistor which controls the rotational speed (standard/high speed) of the motors. Standard speed is selected when voltage is applied to the base, and high speed is set when the base is "low".

Voltage is applied to the base of QM14 in the following situations: when the speed selection switch (SM02) is set to STANDARD, when the dubbing ON/OFF switch (SM01) is OFF, and when the slide switch (SS51) is set to the playback mode.

4.4 Speed adjustment circuit



The control output pins (3) and (4) of the motor drive IC inside the high speed motor M071 (M075) are connected to the speed adjustment circuit board (PJ10) (JM03, JM04), and the speed of the motor is controlled through adjustment of the externally mounted potentiometers RM47, RM48, RM53, and RM54.

In the standard speed mode, the voltage from RM41 is low as there is voltage applied to the base of QM14. QM17 and QM18 are turned OFF through J810, J811, RM43, and RM44. The standard speed setting is adjusted through adjustment of the potentiometers RM47 (TAPE B) and RM48 (TAPE A).

Voltage of 12V is applied to TP10 when the high speed mode is selected. Voltage is applied to the bases of QM17 and QM18 through RM43 and RM44, and the high speed setting of RM53 (TAPE B) and RM54 (TAPE A).

When switching between FF and REW is performed when QM15 is set for high speed, switching is carried out in the standard mode.

5. HIGH SPEED DUBBING

High speed recerding procedure

This is the signal processing when normally recorded tapes are dubbed at high speed.

5.1 High speed Playback

In order to raise the high and mid ranges during high speed playback, the high and mid range signals are lowered during dubbing at the playback AMP OUT, and flat high speed playback output is obtained.

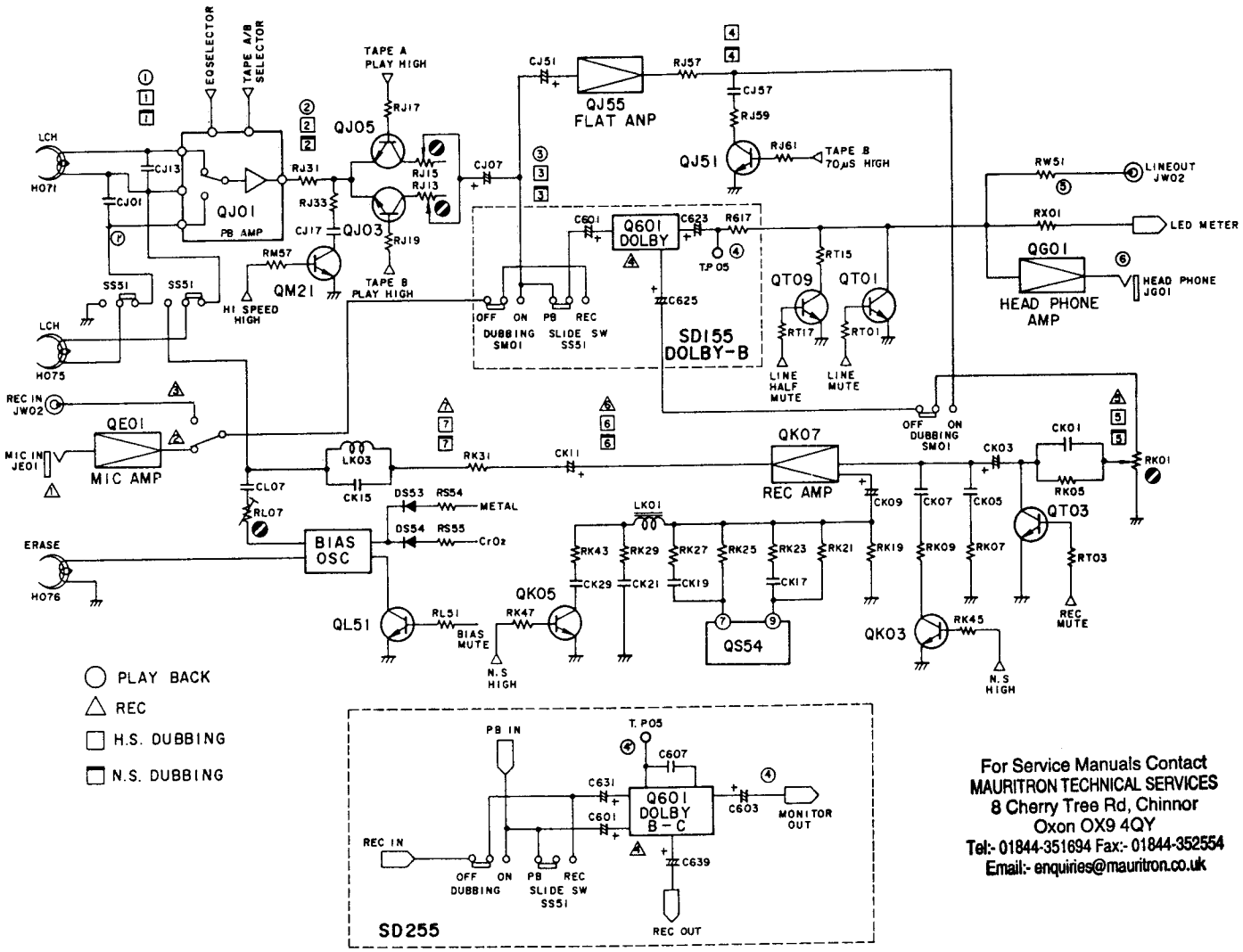
5.2 High speed recording

The residual magnetic flux density recorded on the tape is proportional to the signal current. Thus, for high speed recording, the recording wavelength of fixed speed recordings must be equalized for high speed recording.

5.3 Gain amplifier

The level is amplified in order to make the output from the playback amplifier equal to the recording current of the recording level of fixed speed recording. 19.7 dB is the level when equalizing is set for fixed speed playback. If it is not set, the level is 25.7 dB of the gain of the Dolby circuit. When it is set, reduction of −6 dB from the ideal playback equalization curve is necessary.

6. HIGH AND STANDARD SPEED DUBBING CIRCUIT



For Service Manuals Contact
MAURITRON TECHNICAL SERVICES
8 Cherry Tree Rd, Chinnor
Oxon OX9 4QY
Tel:- 01844-351694 Fax:- 01844-352554
Email:- enquiries@mauritron.co.uk

Description of circuit

6.1 Voltage is constantly applied to the base of QM20 in the standard mode, and the base voltage of QM21 and QM22 is low.
The base voltage of QM20 goes to "low" when the high speed mode is selected. Voltage of 12V is applied to the base QM21 and QM22 through RM56, and these turn ON.
RM31, RM33, and CJ17 lower the mid and high ranges during high speed, so allow for flat high speed playback output.

6.2 Gain amplifier

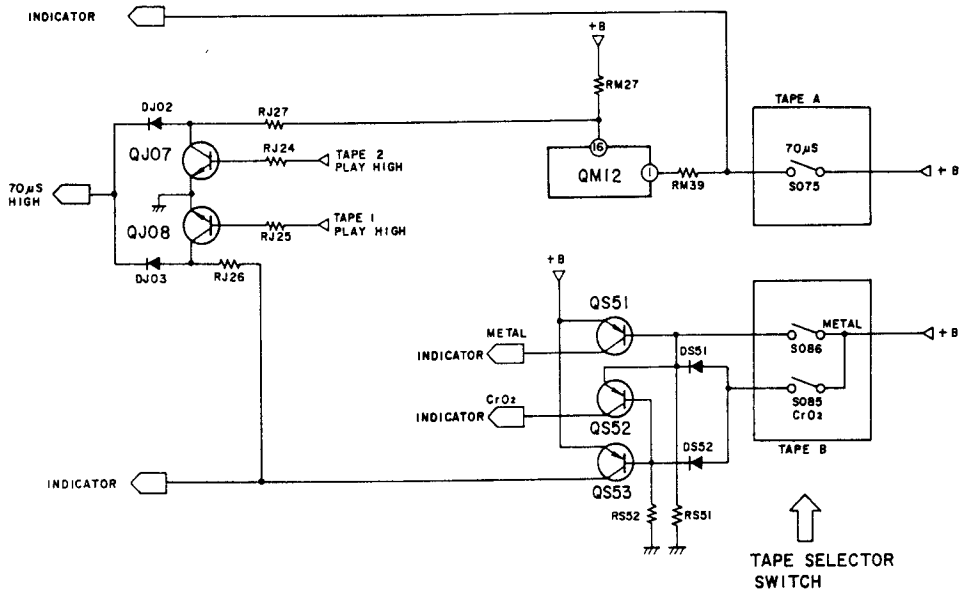
This amplifier perform level matching of the current for standard and high speed recording. The gain is 26 dB. The signals from TAPE B passes through RG61 when 70 μsec, and turn QJ51 ON. Mid and high range compensation is performed by CJ57 and RG59.

6.3 Recording amplifier

The signals normally pase through SM01 from the Dolby IC Rec out output (pin (9) for SD155 and pin (21) for SD255) and are input to the recording amplifier. During high speed dubbing, the gain amplifier output passes through SM01 and is input to the recording amplifier. QK03 and QK05 are ON for standard speed, mid range compensation is performed by CK07, RK09, CK05, and RK07, and LK01, CK21, and RK29 perform high range compensation.
QK03 is OFF in the high speed mode and the mid range compensation is performed by CK05 and RK07. QK05 is switched OFF when there is high range peaking, and RK29 and CK21 perform a shift of the high range peaking. Mid range compensation for CrO_2 and metal tape in the high speed mode is performed in the standard speed EQ characteristics mode.
High speed dubbing is the same as normal line recording, with the signals passing through the QJ55 flat amplifier, and input to the recording amplifier.
The monitor signals pass through the DOLBY IC, and the Dolby recorded signals are decoded so to allow them to be heard using the monitor. During dubbing (standard and high speed) the signals are dubbed in their encoded form.

M29 80

7. AUTO TAPE SELECTION



The auto tape selection function of TAPE A operates only for playback, and allows for discrimination between 70μsec or 120μsec. (LED INDICATOR)
S075 is ON for normal tape. Voltage passes through RM39 and is applied to pin (1), and pin (16) becomes "low". Pin (1) is low for QM12 and pin (16) is high.

TAPE B auto tape selector

1. Normal tape

a) Both of the tape selector switches (S086 and S085) are ON.

b) The base voltage of the transistor (QS51) for metal tape is set to a high level by the selector switch (S086), setting it to the OFF mode.

c) The base voltage of the transistor (QS52) for CrO_2 tape is set to a high level by the selector switch (S085), and diode (DS51), setting it to the OFF mode.

d) The base voltage of the 70μsec switching transistor (QS53) is set to a high level by the selector switch (S085) and diode (DS52), setting it to the OFF mode.

2. CrO_2 tape

a) The tape selector switch (S086) is OPEN, and (S085) is CLOSED.

b) The base voltage of the transistor (QS51) for metal tape is set to a high level by the selector switch (S085) setting it to the OFF mode.

c) The base voltage of the transistor (QS52) for CrO_2 tape flows through (RS52) because the selector switch (S086) is in the OPEN state. Moreover, the emitter of (QS52) is set to the high level by the selector switch (S085), setting (QS52) ON and the emitter voltage level to high.

d) The base current of the 70μsec switching transistor (QS53) flows through (RS52) because the selector switch (S086) is in the OPEN state. Thus, the transistor is set to ON, and the collector of (QS53) is set to the high level.

3. Metal tape

a) Both of the tape selector switches (S086 and S085) are ON.

b) The base current of the transistor (QS51) for metal tape flows through RS51 when the selector switches (S086 and S085) are ON, and QS51 is turned to ON.

c) The transistor (QS52) for CrO_2 tape is set to OFF, because the selector switch (S085) is OPEN state, and because the base voltage is at the high level due to the base current of (QS53).

d) The base current of the 70μsec switching transistor (QS53) flows through (RS52) because the selector switch (S086) is OPEN. (QS53) is set to ON, and the collector of (QS53) to the high level.

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Mode and Switching Relatonships

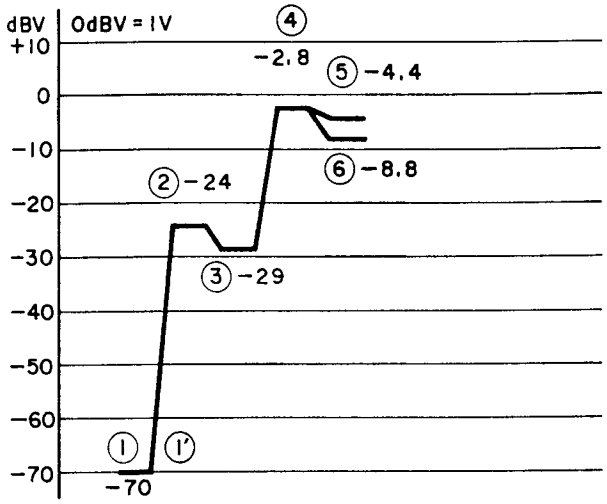
	Tape selector switch		Transistors			Control output		
	S085	S086	QS51	QS52	QS53	QS53(C)	QS51(C)	QS52(C)
						70μsec	Metal	CrO_2
Normal	CLOSE	CLOSE	OFF	OFF	OFF	L	L	L
CrO_2	OPEN	CLOSE	OFF	ON	ON	H	L	H
Metal	OPEN	OPEN	ON	OFF	ON	H	H	L

The EQ switching of the playback amplifier (QJ01) is "High" for 70μsec, and "Low" for 120μsec. (QJ07) and (QJ08) are used to determine the EQ of the tape being played. In terms of the operation, when a CrO_2 tape is being played by TAPE A, the TAPE A play high voltage is applied to (RJ25), (QJ08) is turned ON, and the 70μsec high level and 120μsec low level voltage of (QS53) pass through (RJ26) to become low. As (QJ07) is OFF, the 70μsec high level passes through (RJ27) and (DJ02), and is applied to the EQ switching terminal. This circuit causes the output of the EQ voltage of the side currently being played.

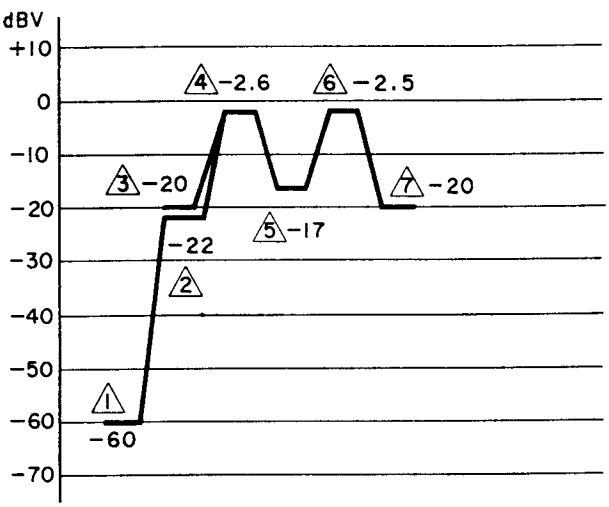
8. LEVEL DIAGRAMS

Model SD155

PLAY BACK MODE

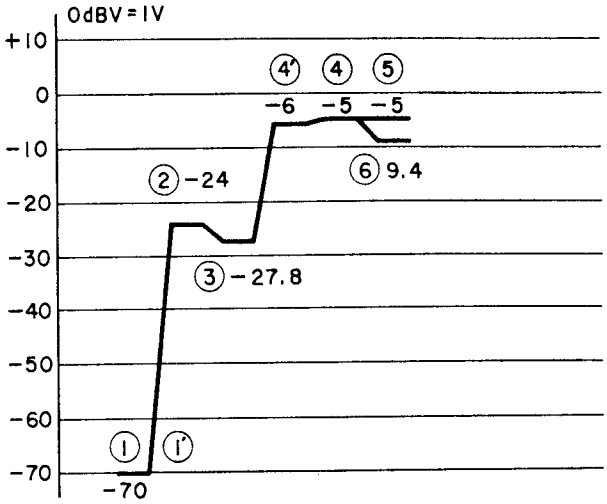


RECORDING MODE

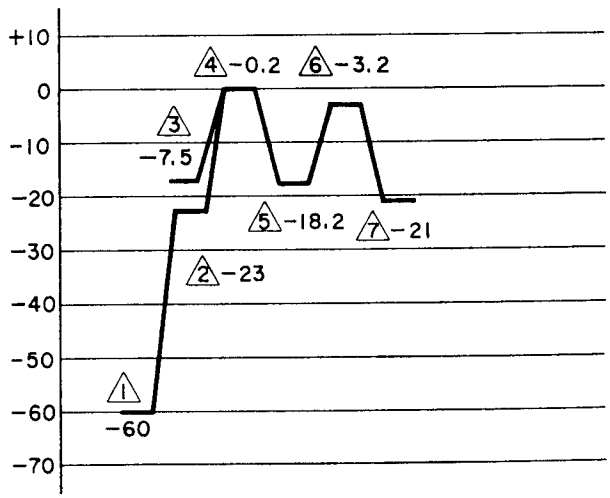


Model SD255

PLAY BACK MODE

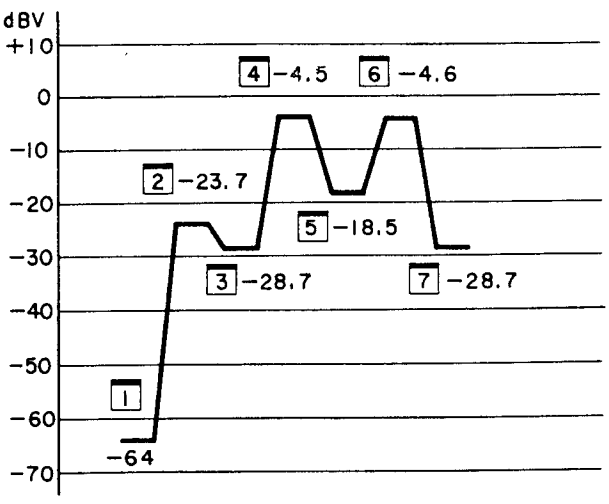


RECORDING MODE

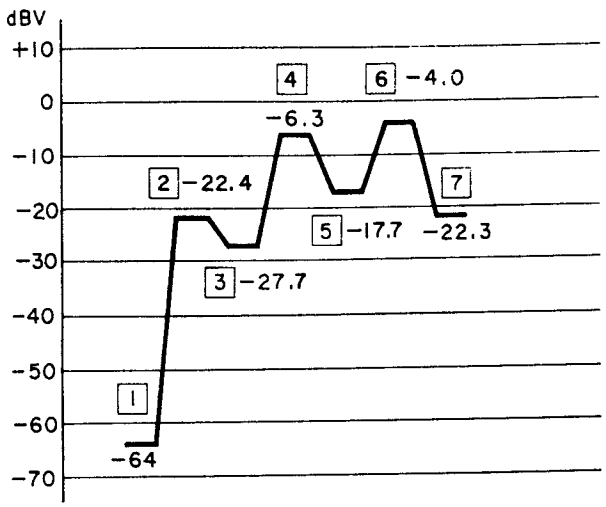


Model SD155/SD255

STANDARD SPEED DUBBING MODE



HI SPEED DUBBING MODE



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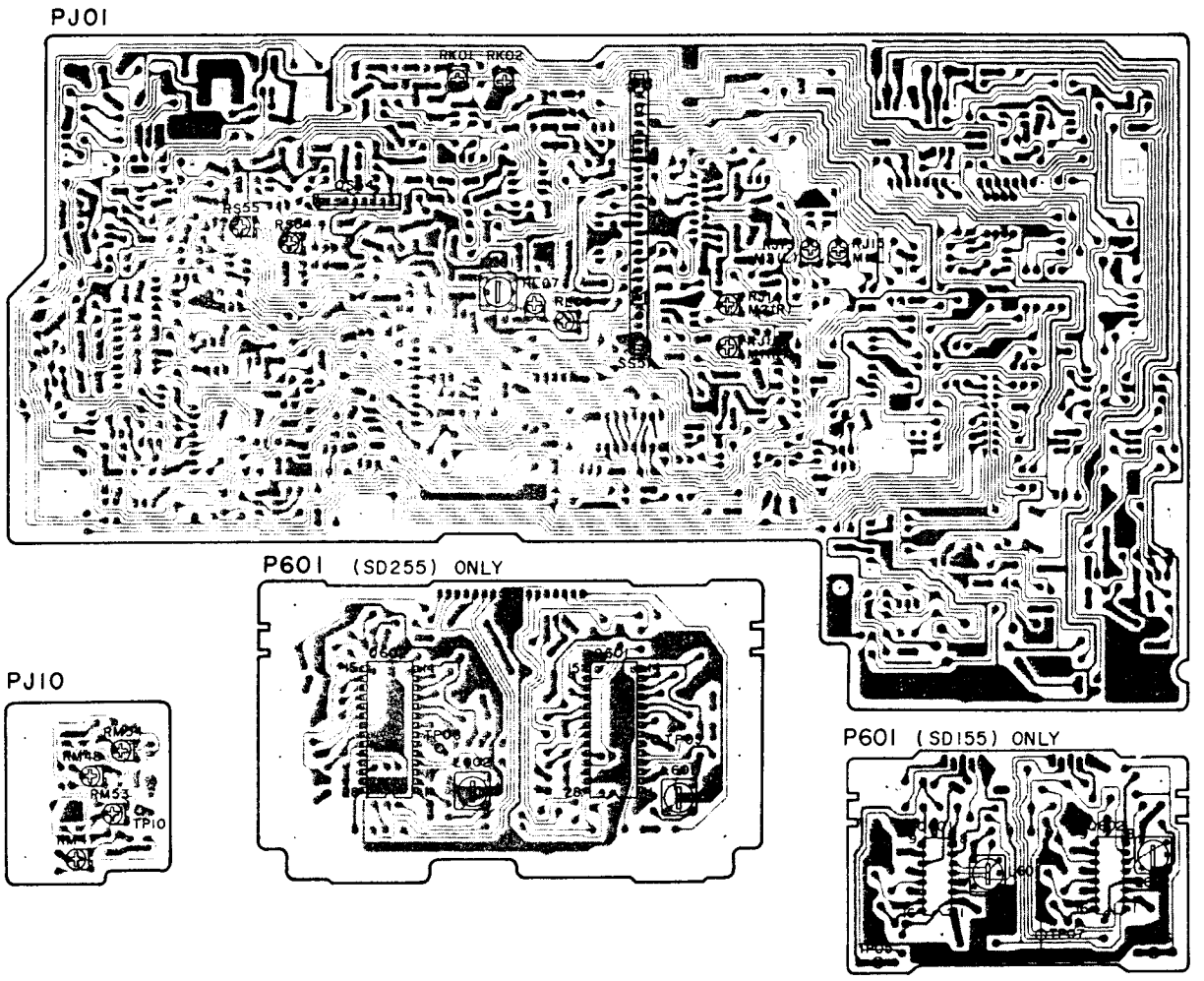
9. MEASUREMENT AND ADJUSTMENT OF THE CIRCUIT

Precautions for Adjustment and Measurement

1) Before playing back the test tape, thoroughly demagnetize the heads, capstan and similar metal parts using an erase, as the test tape-recorded tone is easily erased.
2) Do not place the test tape on any measuring instrument.
3) Do not put the test tape near a place where the eraser is used.
4) Method of Demagnetization: Turn the eraser power switch on at a position far away from the heads. Bring the eraser close to the heads, capstan and other parts to be demagnetized, and move it up and down four or five times to demagnetize. Slowly separate the eraser far away from the parts, and turn the power switch off.
5) Do not use any magnetized adjusting tool. If necessary, demagnetize with a bulk eraser from time to time in the course of each adjustment.
6) Do not turn semi-fixed resistor or coil more than needed.
7) Measure speed and wow and flutter in the normal operating state.
8) Do not apply locking bond excessively.

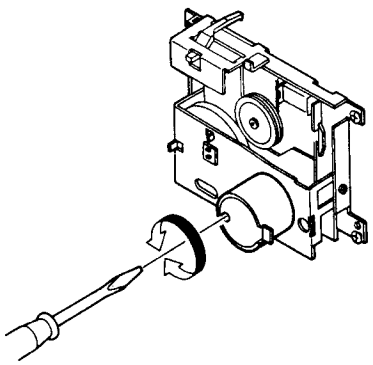
Diagram of Adjustment and Test Points



9.1 Tape Speed Adjustment

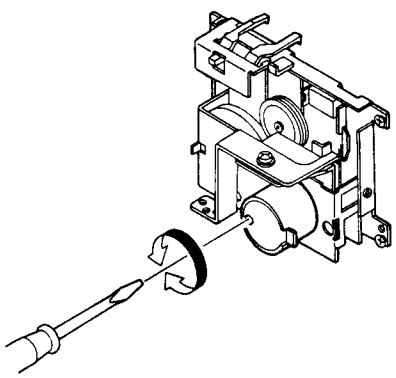
(TAPE A)

1. Play the middle portion of the TCC-111 test tape, and adjust the varisble resistor for speed adjustment (RM48) until the counter indication is in the range of 2990 Hz to 3010 Hz. (Fized speed: 4.8 cm/sec)
2. Play the middle portion of the TCC-211 test tape, and adjust the variable resistor for speed adjustment (RM54) until the counter indication is in the range of 3000 Hz to 3010 Hz. (High speed: 9.5 cm/sec)
3. In order to confirm that adjustment has been properly completed, rewind the tape, play it back, and confirm that the values are within the desired range.



(TAPE B)

1. Play the middle portion of the TCC-111 test tape, and adjust the variable resistor for speed adjustment (RM47) until the counter indication is in the range of 2990 Hz to 3010 Hz. (Fixed speed: 4.8 cm/sec)
2. Play the middle portion of the TCC-211 test tape, and adjust the variable resistor for speed adjustment (RM53) until the counter indication is in the range of 3000 Hz to 3010 Hz. (High speed: 9.5 cm/sec)
3. In order to confirm that adjustment has been properly completed, rewind the tape, play it back, and confirm that the values are within the desired range.



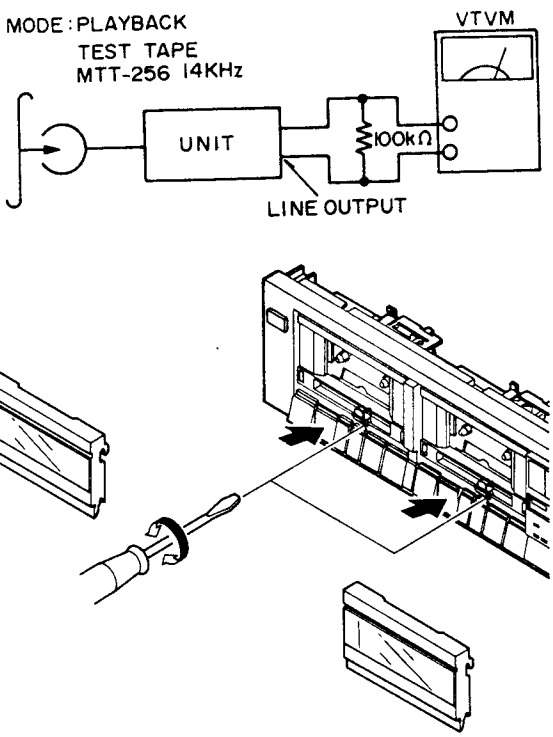
Notes: 1. Do not adjust the unit after subjecting it to a change in temperature.

2. Note that the frequency counter may not be accurate if the input level is low.
3. Adjust the unit after allowing it to idle for approximately 10 to 20 sec.
4. Adjust high speed before low speed. The high speed mode is selected by applying 12V to TP10. This mode is selected if the unit is in the normal playback mode.

9.2 Head Azimuth Adjustment

1. Playback the 14 kHz signal of the MTT-256 test tape, and rotate the azimuth adjustment screw for maximum indication on the VTVM.
2. If the peak level of the left and right channels is different, take the lower channel as the maximum value.
3. After adjustment, repeat a playback and stop cycle several times to make sure that there is no adjustment shift.
4. Be sure to paint lock the screw after the completion of adjustment.

Note: Adjust for TAPE A and TAPE B at the same location using the same side of the tape.



9.3 Playback Equalizer Adjustment

1. Playback the 315 Hz signal of the MTT-256 test tape. The indication of the VTVM is set to 0 dB.
2. Playback the 12.5 kHz signal of the MTT-256 test tape, and confirm that level is within 1 dB of the 315 Hz signal.
3. Perform the above for both TAPE A and TAPE B.

9.4 Playback Output Level Adjustment (Model SD155)

1. Playback the MTT-150 test tape, and adjust TAPE A (RJ15 (L) and RJ16 (R)) and TAPE B (RJ13 (L) and RJ14 (R)) until the voltage at the terminals is 580 mV at the Dolby tast points (TP05-L and TP06-R).
2. Rewind the tape and confirm that the voltage is 580 mV during playback.

9.5 Playback Output Level Adjustment (Model SD255)

1. Playback the MTT-150 test tape, and adjust TAPE A (RJ15 (L) and RJ16 (R)) and TAPE B (RJ13 (L) and RJ14 (R)) until the voltage at the terminals is 387.5 mV at the Dolby test points (TP05-L and TP06-R).
2. Rewind the tape and confirm that the voltage is 387.5 mV during playback.

9.6 Playback Noise Adjustment

1. Set the NR switch to the OFF position.
2. Playback a blank portion of a normal tape, and confirm that the amount of noise is less than 1.5 mV at the LINE OUT output.

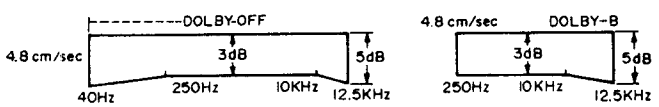
9.7 Recording-Playback Frequency Response Adjustment and Measurement

(Normal)

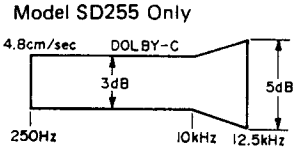
1. Set the AC-212 test tape to the standard recording mode (Input: 230 mV), reduce the level by 22 dB with an attenuator, and record 1 kHz and 10 kHz signals on the unrecorded section of the tape.
   (Model SD155 – Dolby-B position)
   (Model SD255 – Dolby-C position)
2. Rewind the tape, and adjust the RL07 (L) and RL08 (R) until the difference between the 1 kHz and 10 kHz sections is 0 – ±1.0 dB.
3. After the above adjustment is complete, record 1 kHz, 10 kHz, and 12.5 kHz signals, and confirm that the difference in levels when the various frequencies are played back meets the specifications below.
4. Next, set the DOLBY switch to the OFF position, record 1 kHz and 12.5 kHz signals, and confirm that the difference in levels meets the specifications below.
5. Confirm that the L/R channel balance of 10 kHz is within 3 dB with Dolby OFF.

Note: If a difference of more than 1 dB exists when the 1 kHz level for Dolby-B is compared with the monitor, adjust RK01 (L) and RK02 (R) until the recording level adjustment is set to within 1 dB.

Model SD155/SD255



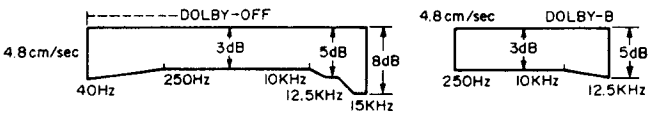
Model SD255 Only



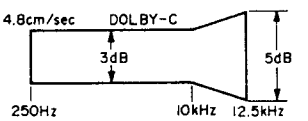
(CrO_2)

1. Set the AD-512 test tape to the standard recording mode (Input: 230 mV), reduce the level by 22 dB with an attenuator, and record 1 kHz and 10 kHz signals on the unrecorded section of the tape. (Dolby-B position)
   (Model SD155 – Dolby-B position)
   (Model SD255 – Dolby-C position)
2. Rewind the tape, and adjust the BIAS variable resistor RS55 until the difference between the 1 kHz and 10 kHz sections is 0 – ±1.0 dB.
3. After the above adjustment is complete, record 1 kHz, 10 kHz, and 12.5 kHz signals, and confirm that the difference in levels when the various frequencies are played back meets the specifications below.
4. Next, set the DOLBY switch to the OFF position, record 1 kHz and 12.5 kHz signals, and confirm that the difference in levels meets the specifications below.
5. Confirm that the L/R channel balance of 10 kHz is within 3 dB with Dolby OFF.

Model SD155/SD255



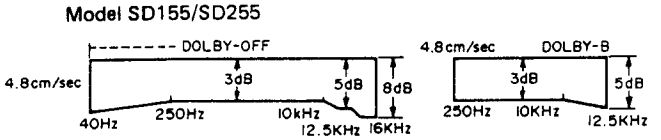
Model SD255 Only



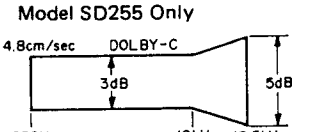
(Metal)

1. Set the AC-712 test tape to the standard recording mode (Input: 230 mV), reduce the level by 22 dB with an attenuator, and record 1 kHz and 10 kHz signals on the unrecorded section of the tape. (Dolby-B position)
   (Model SD155 – Dolby-B position)
   (Model SD255 – Dolby-C position)
2. Rewind the tape, and adjust the BIAS variable resistor RS54 until the difference between the 1 kHz and 10 kHz sections is 0 – ±1.0 dB.
3. After the above adjustment is complete, record 1 kHz, 10 kHz, and 12.5 kHz signals, and confirm that the difference in levels when the various frequencies are played back meets the specifications below.
4. Next, set the DOLBY switch to the OFF position, record 1 kHz and 10 kHz signals, and confirm that the difference in levels meets the specifications below.
5. Confirm that the L/R channel balance of 10 kHz is within 3 dB with Dolby OFF.

Model SD155/SD255



Model SD255 Only

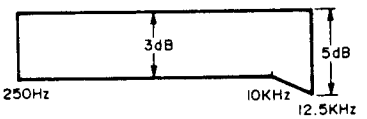


9.8 Dubbing Recording-Playback Level Measurement

1. Insert the MTT-150 test tape into TAPE A and the AC-212 tape into TAPE B.
2. Set the unit for dubbing from TAPE A to TAPE B.
3. After rewinding TAPE B, play the tape and make measurement at the Dolby test points TP05 and TP06. Confirm that the playback output level is within 580 mV ±1 dB.

9.9 Dubbing Recording-Playback Frequency Response Measurement

1. Insert the MTT-256 test tape into TAPE A and the AC-212 tape into TAPE B.
2. Set the unit for dubbing from TAPE A to TAPE B.
3. After rewinding TAPE B (AC-212), play the tape back. Confirm that the difference between the 1 kHz and 12.5 kHz signals meets the specifications below.



10. VOLTAGE CONVERSION

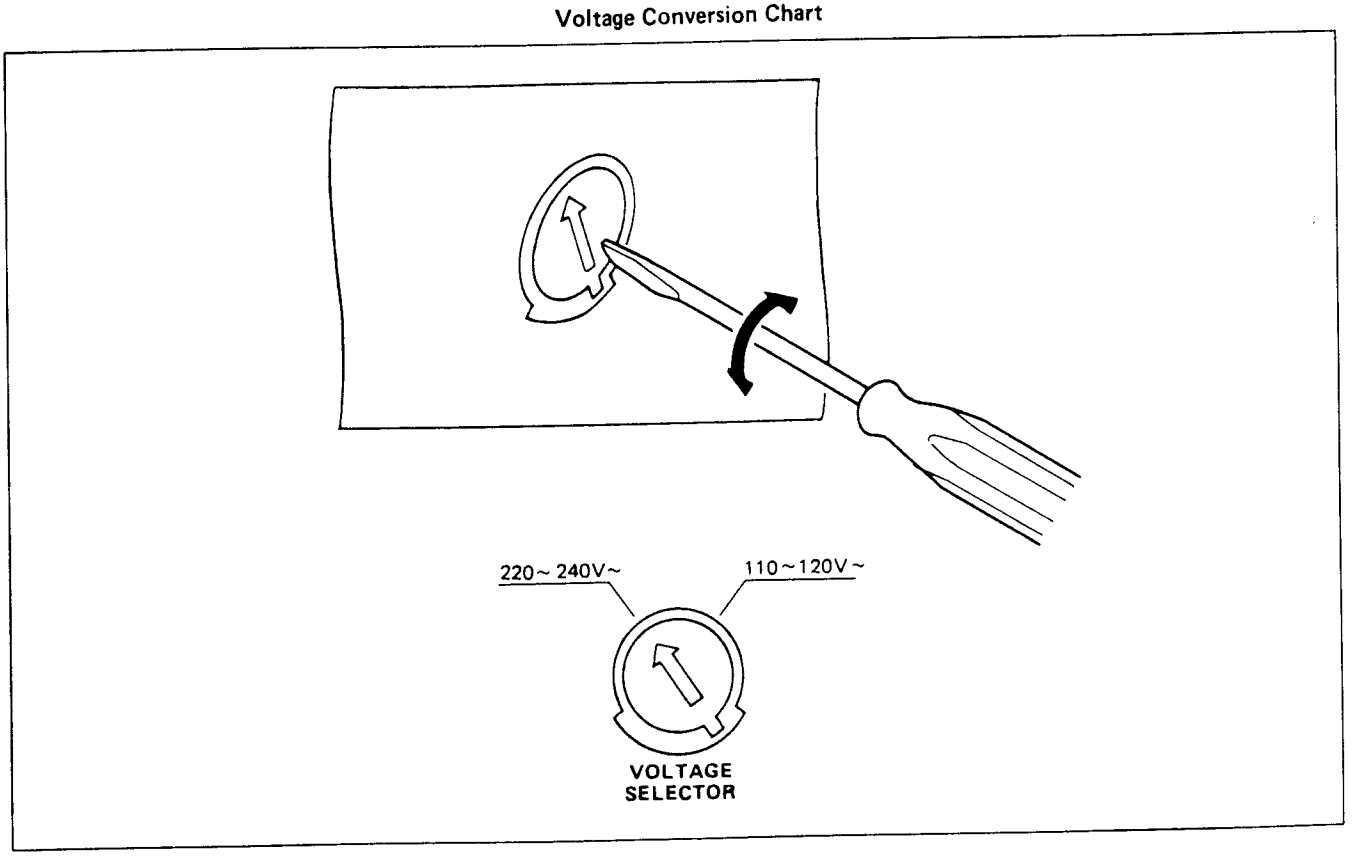
- **EUROPEAN MODEL ONLY**

To convert the unit to a different power source voltage, change the position as illustrated in the drawing below.

CAUTION

DISCONNECT POWER SUPPLY CORD FROM AC OUTLET BEFORE CONVERTING VOLTAGE.

Voltage Conversion Chart

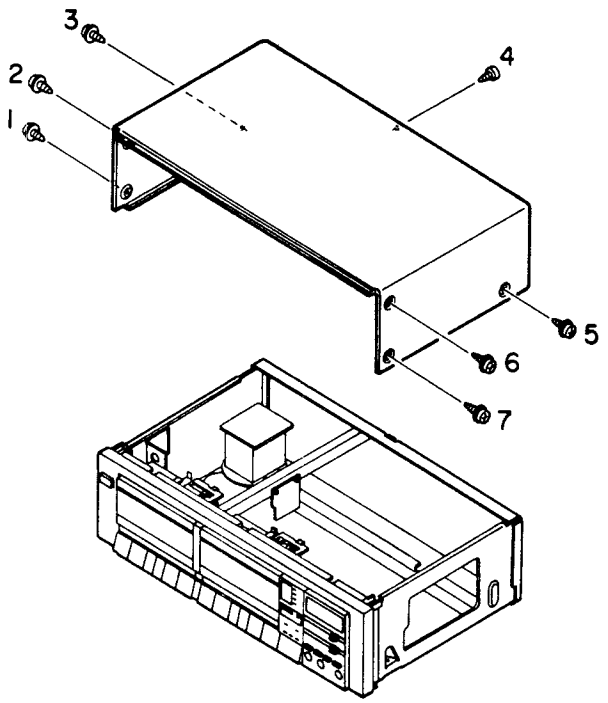


Note on safety: Symbol ⚠ Fire or electrical shock hazard. Only original parts should be used to replace any part marked with symbol ⚠. Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.

11. DISASSEMBLY

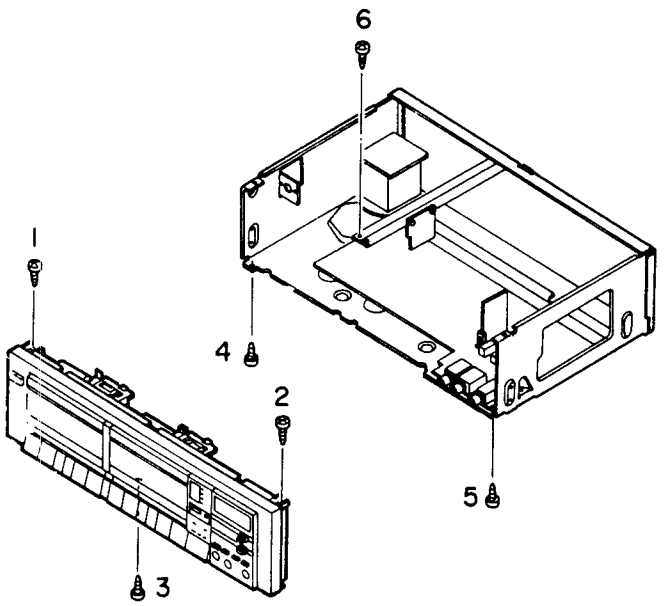
11.1 Removing the Top Cover

Remove the seven screws 1 ~ 7.



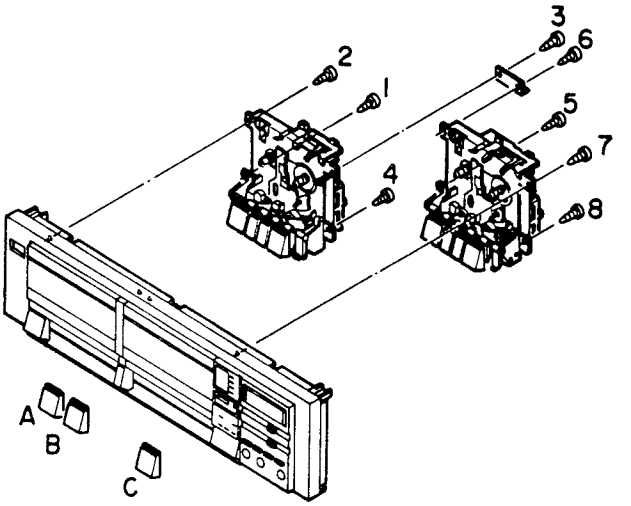
11.2 Removing the Front Panel

Remove the six screws 1 ~ 6.



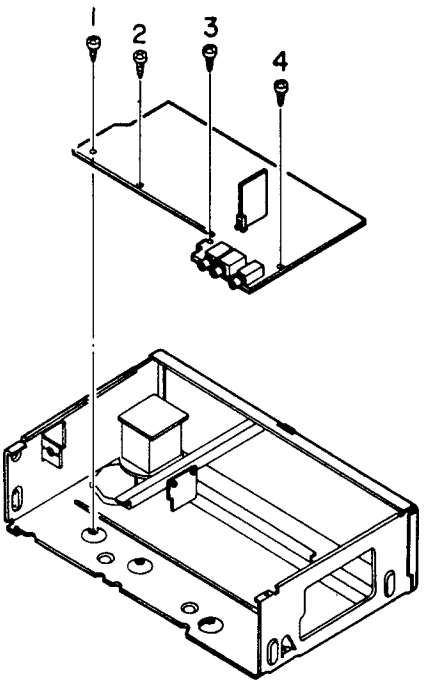
11.3 Removing the Mechanism

Remove the button A, B and C.
Remove the eight screws 1 ~ 8.

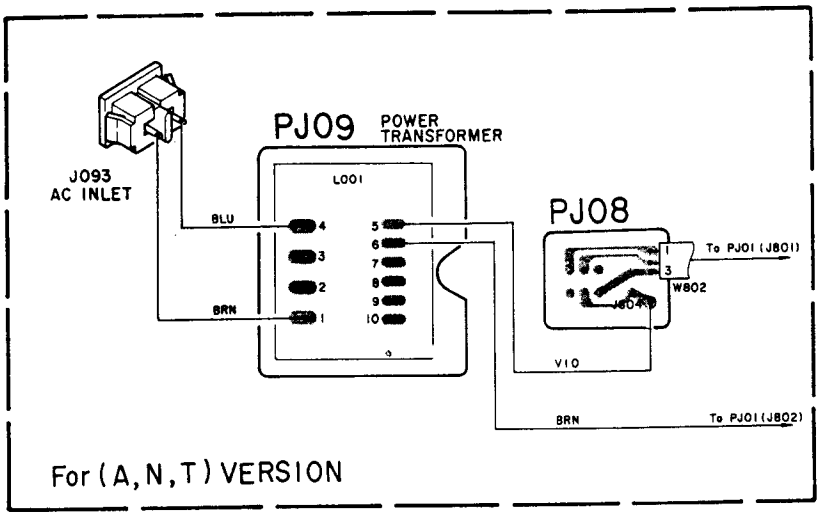


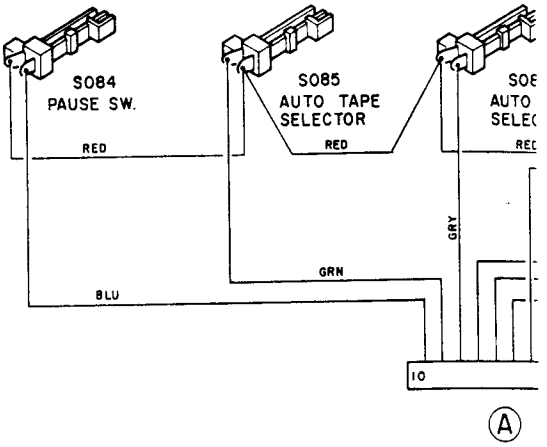
11.4 Removing the P.W. Board

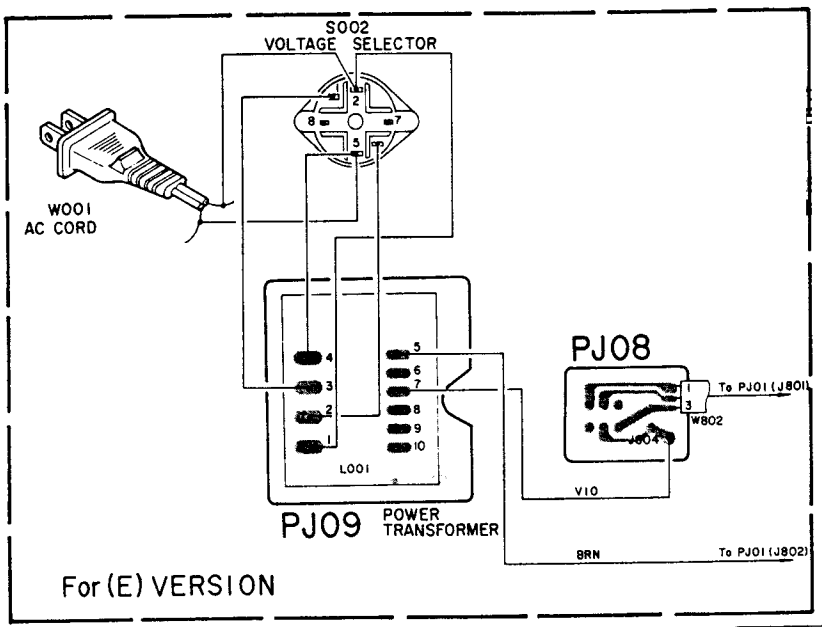
Remove the four screws 1 ~ 4.

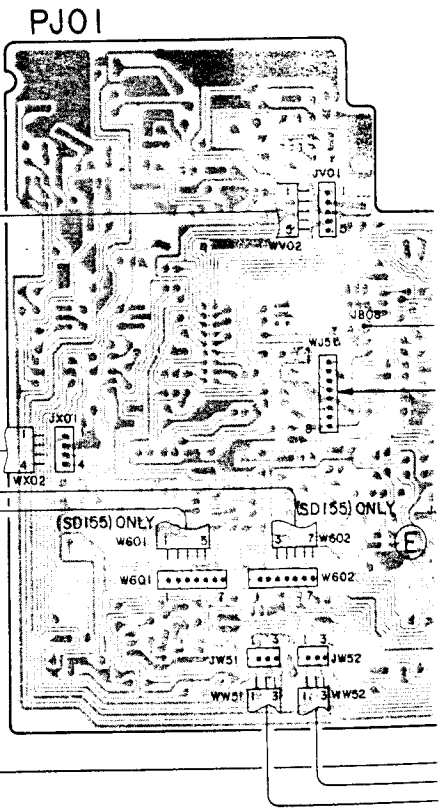


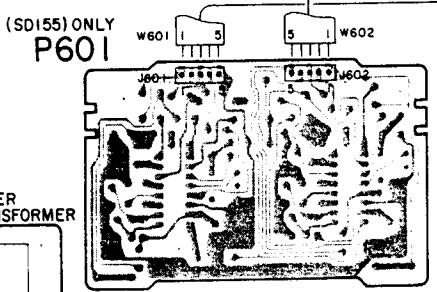
2. WIRING DIAGRAMS (Component side)

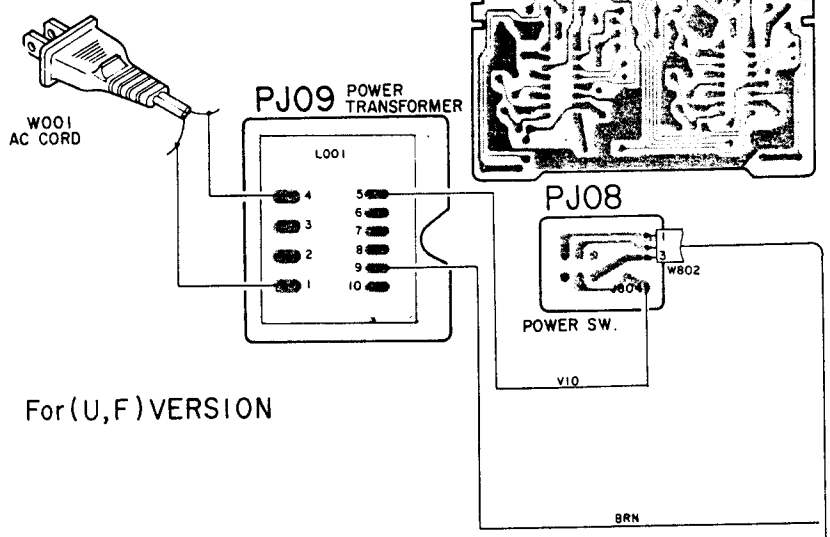


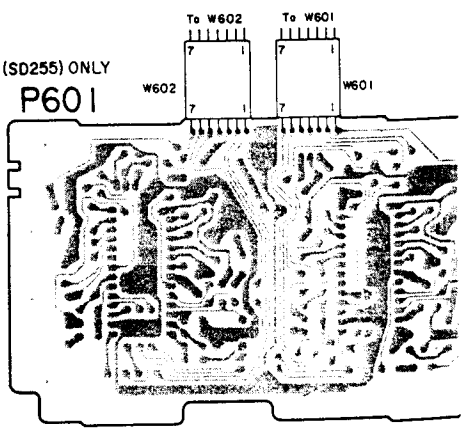


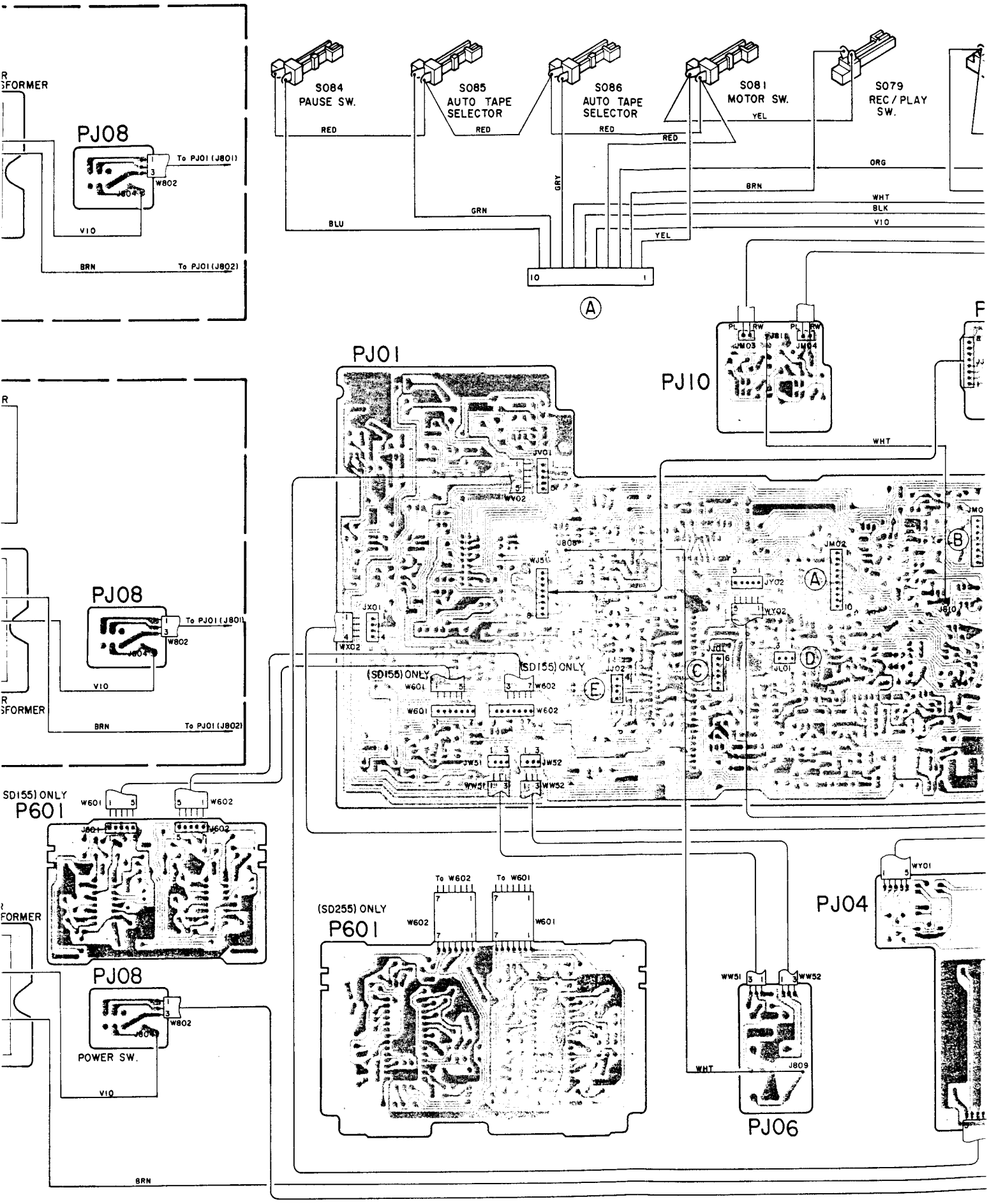


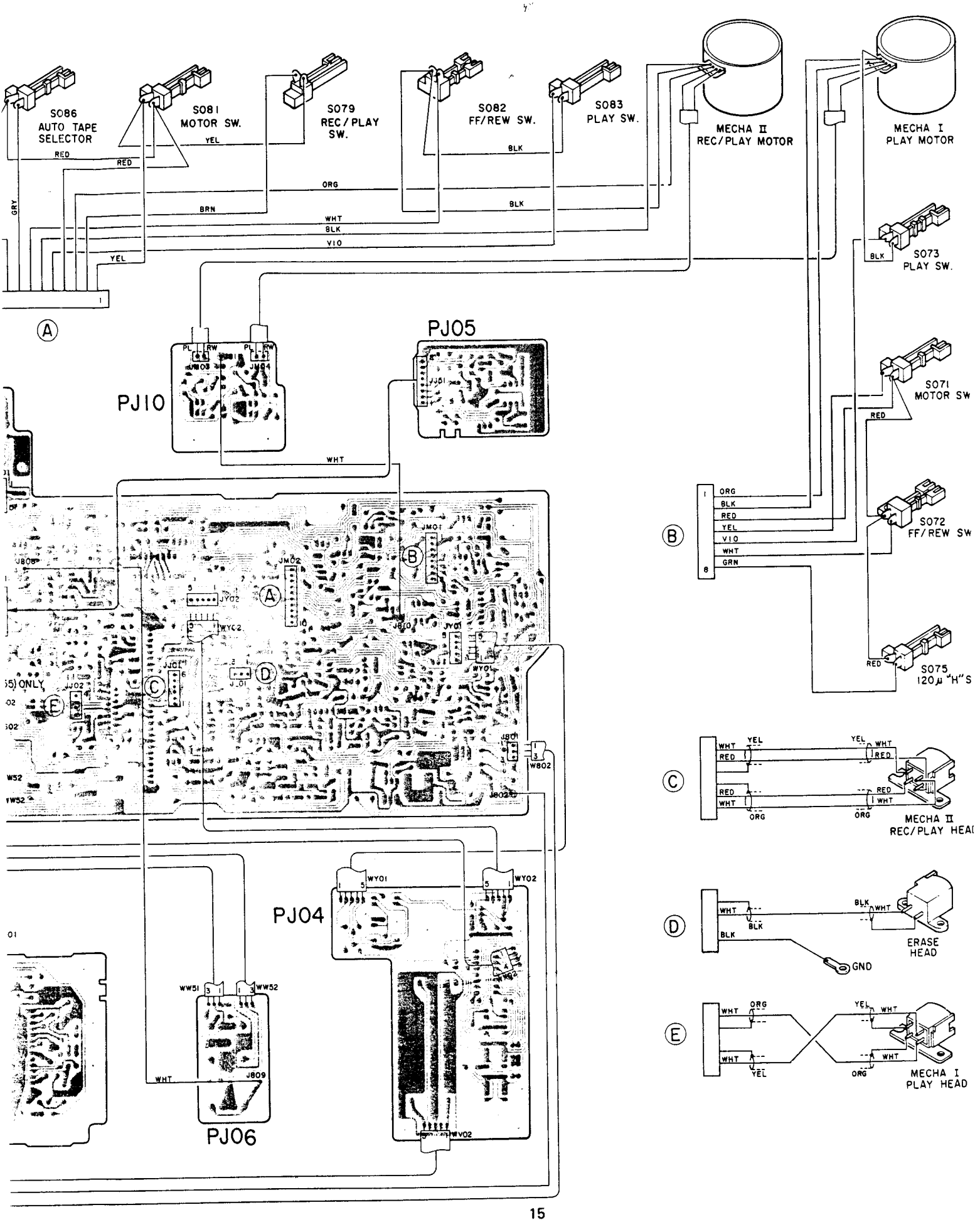






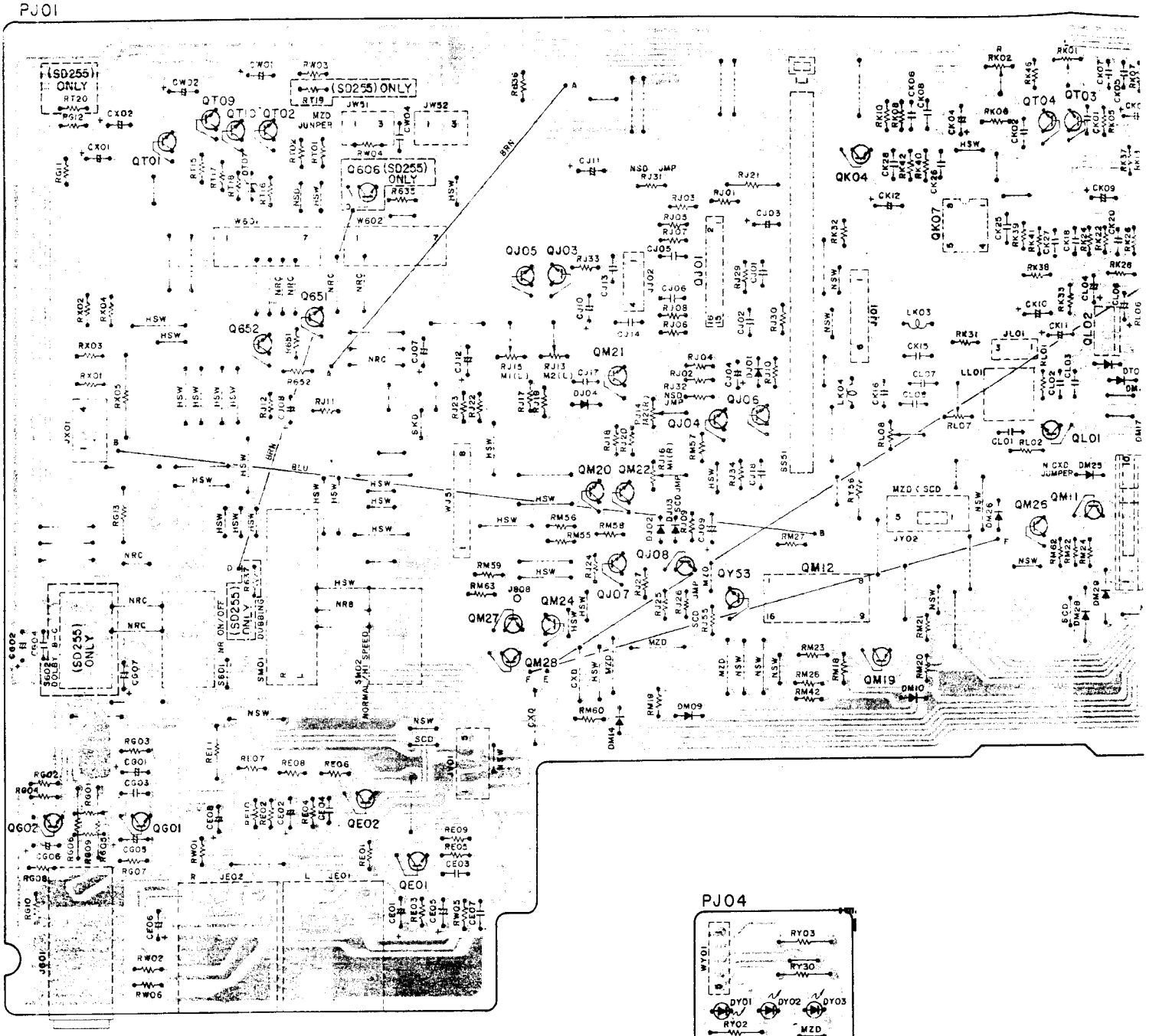



S084
PAUSE SW.
S085
AUTO TAPE
SELECTOR
S086
AUTO TAPE
SELECTOR
S081
MOTOR SW.
S079
REC / PLAY
SW.
RED
GRN
BLU
GRY
YEL
ORG
BRN
WHT
BLK
VIO
10
1
A
PJ01
PJ10
PJ08
To PJ01 (J801)
To PJ01 (J802)
W802
J804
BRN
VIO
R
SFORMER
(SD155) ONLY
P601
W601
W602
J601
J602
(SD255) ONLY
To W602
To W601
PJ04
PJ06
WW51
WW52
WY01
WY02
WV02
WX02
WJ51
WJ52
JV01
JX01
JW51
JW52
JY02
JJ02
JJ01
JL01
JM01
JM02
JM03
JM04
J808
J809
J810
POWER SW.
B
C
D
E
F

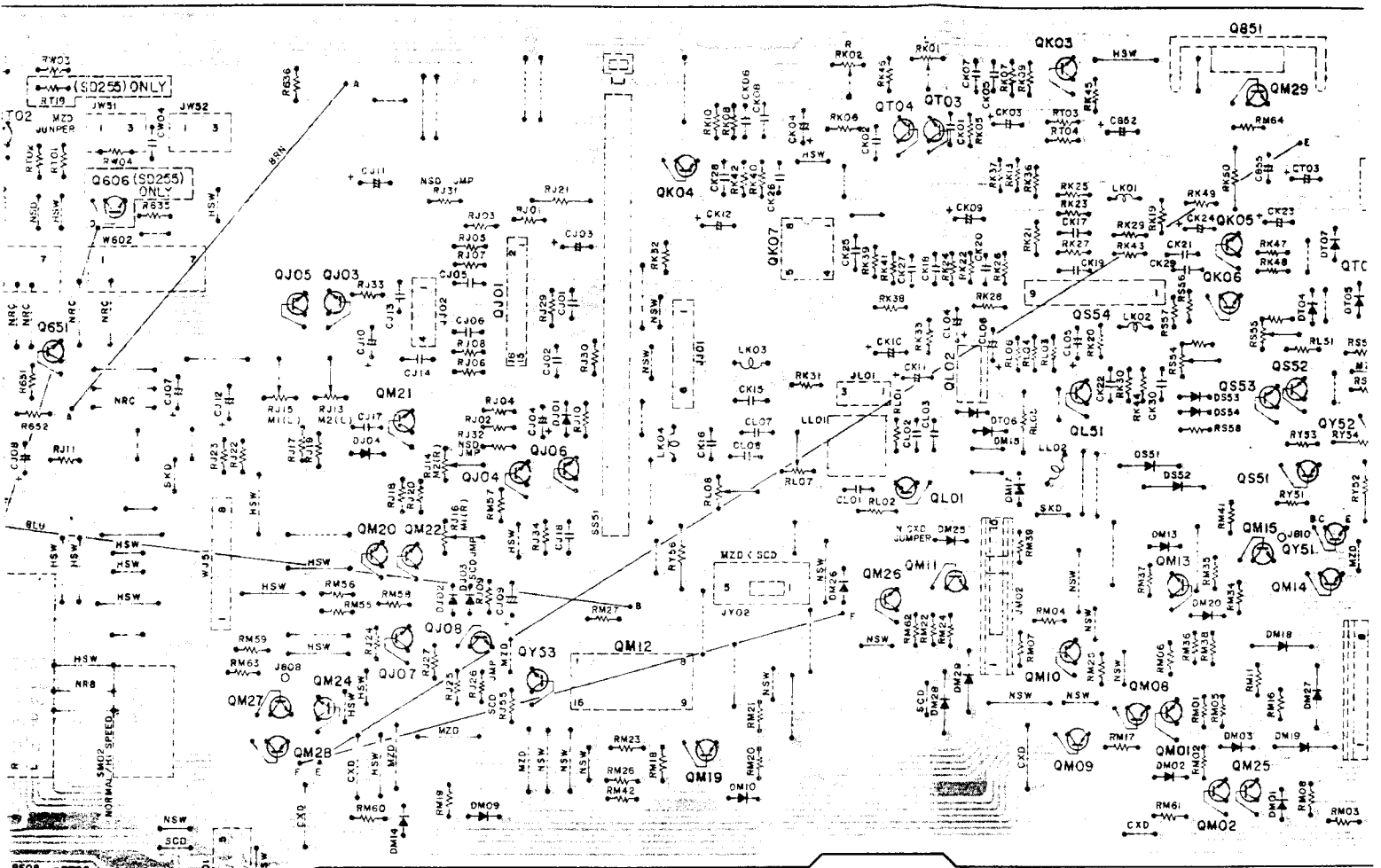

S086
AUTO TAPE
SELECTOR
S081
MOTOR SW.
S079
REC/PLAY
SW.
S082
FF/REW SW.
S083
PLAY SW.
MECHA II
REC/PLAY MOTOR
MECHA I
PLAY MOTOR
S073
PLAY SW.
S071
MOTOR SW
S072
FF/REW SW
S075
120μ "H"S
PJ10
PJ05
PJ04
PJ06
MECHA II
REC/PLAY HEAD
ERASE
HEAD
MECHA I
PLAY HEAD
GND
RED
BLK
WHT
YEL
ORG
BRN
VIO
GRY
GRN

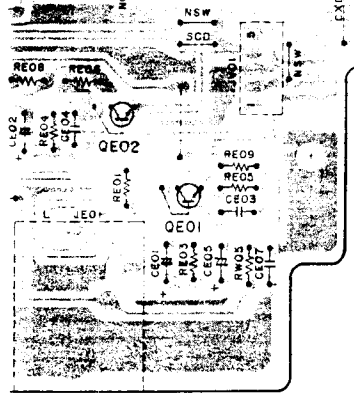
PARTS LOCATION (Pattern side)

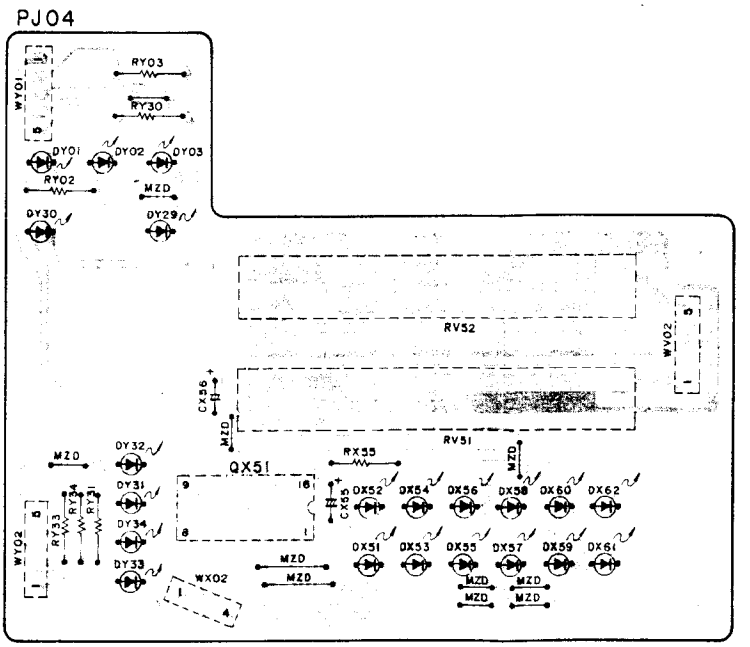
PJ01

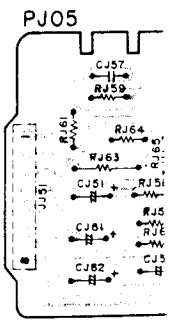


n side)


(SD255) ONLY
Q606 (SD255) ONLY
Q851
QM29
QK03
QT04
QT03
QK04
QK07
QK05
QK06
QS54
QS52
QS53
QY52
QS51
QL51
QL02
QL01
QM21
QM20
QM22
QJ05
QJ03
QJ06
QJ04
QJ08
QJ07
QY53
QM12
QM24
QM27
QM28
QM19
QM26
QM11
QM15
QY51
QM13
QM14
QM10
QM08
QM01
QM09
QM25
QM02
Q651
W602
W451
SMD
NORMAL/HI SPEED
J808
J809
JUMPER
SCD JMP
NSD JMP
MZD
SCD
CXD
SKD
NSW
HSW
NRC
BLU
BRN


QE02
QE01


PJ04
RV52
RV51
QX51
WY01
WY02
WX02
DY01
DY02
DY03
DY29
DY30
DY31
DY32
DY33
DY34
DX51
DX52
DX53
DX54
DX55
DX56
DX57
DX58
DX59
DX60
DX61
DX62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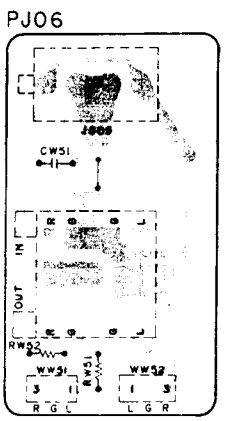
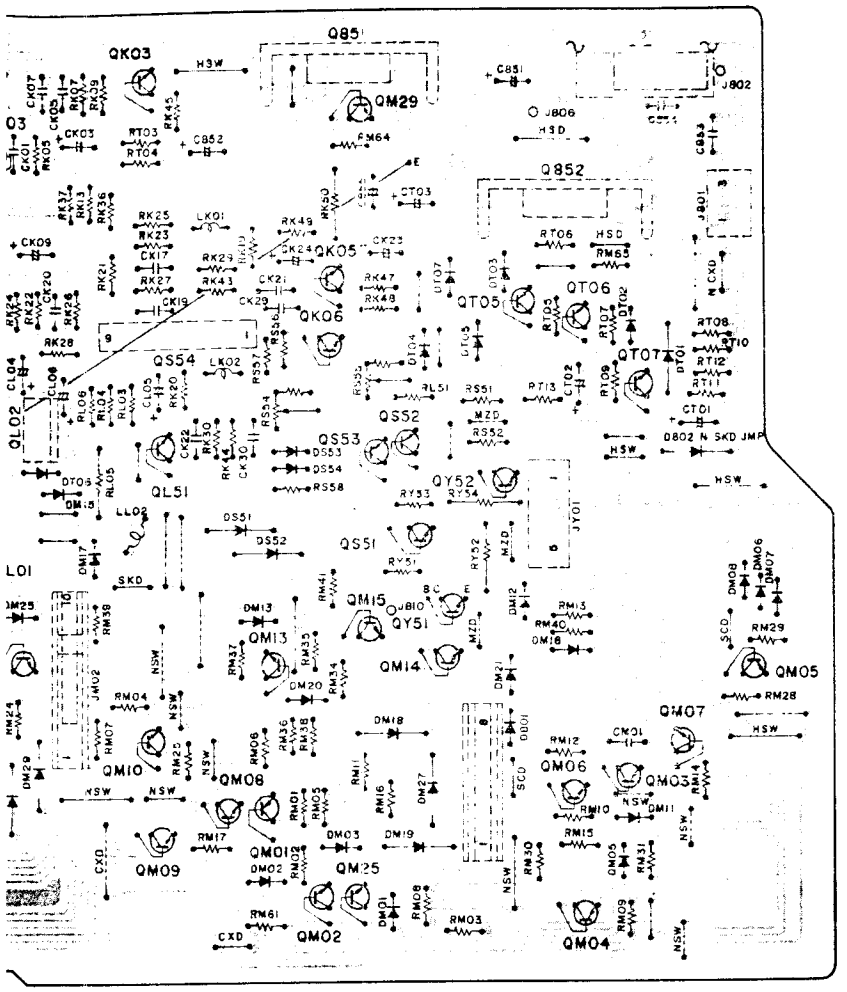
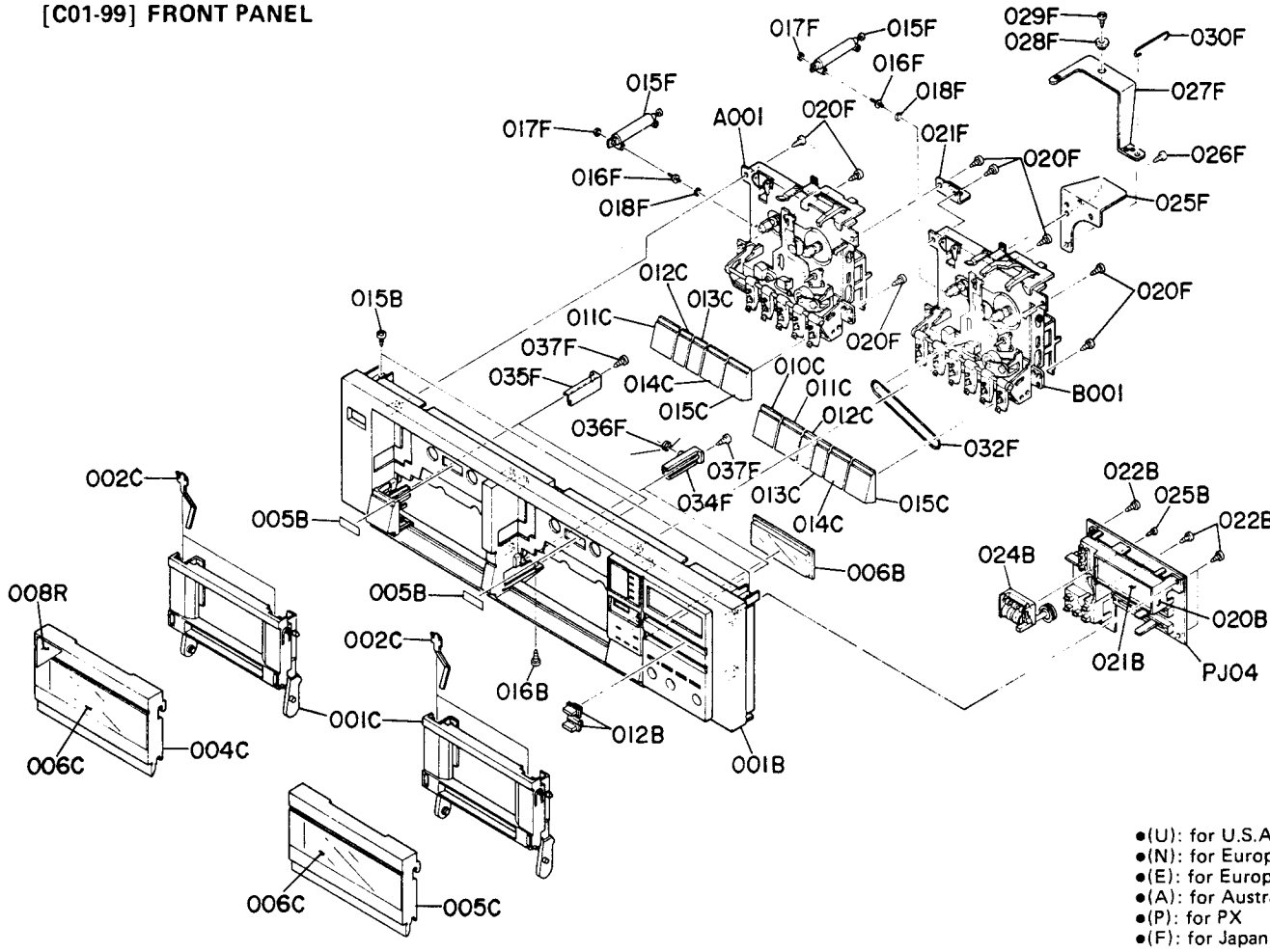

PJ06
J808
CW51
IN
OUT
WW51
WW52

PJ10


Q851
QKQ3
H3W
QM29
Q852
QKQ5
QKQ6
QT05
QT06
QT07
QS54
QS52
QS53
QY52
QL51
QS51
QY51
QM15
QM14
QM13
QM05
QM07
QM10
QM08
QM01
QM09
QM25
QM02
QM06
QM03
QM04
QJ51
QJ55
QJ52
QM17
QM18
TP10
P601
SD255 ONLY
Q604
Q605
Q603
TP06
TP05
(SD155)ONLY
Q602
TP5
PJ05
PJ10

13. EXPLODED VIEW AND PARTS LIST

[C01-99] FRONT PANEL

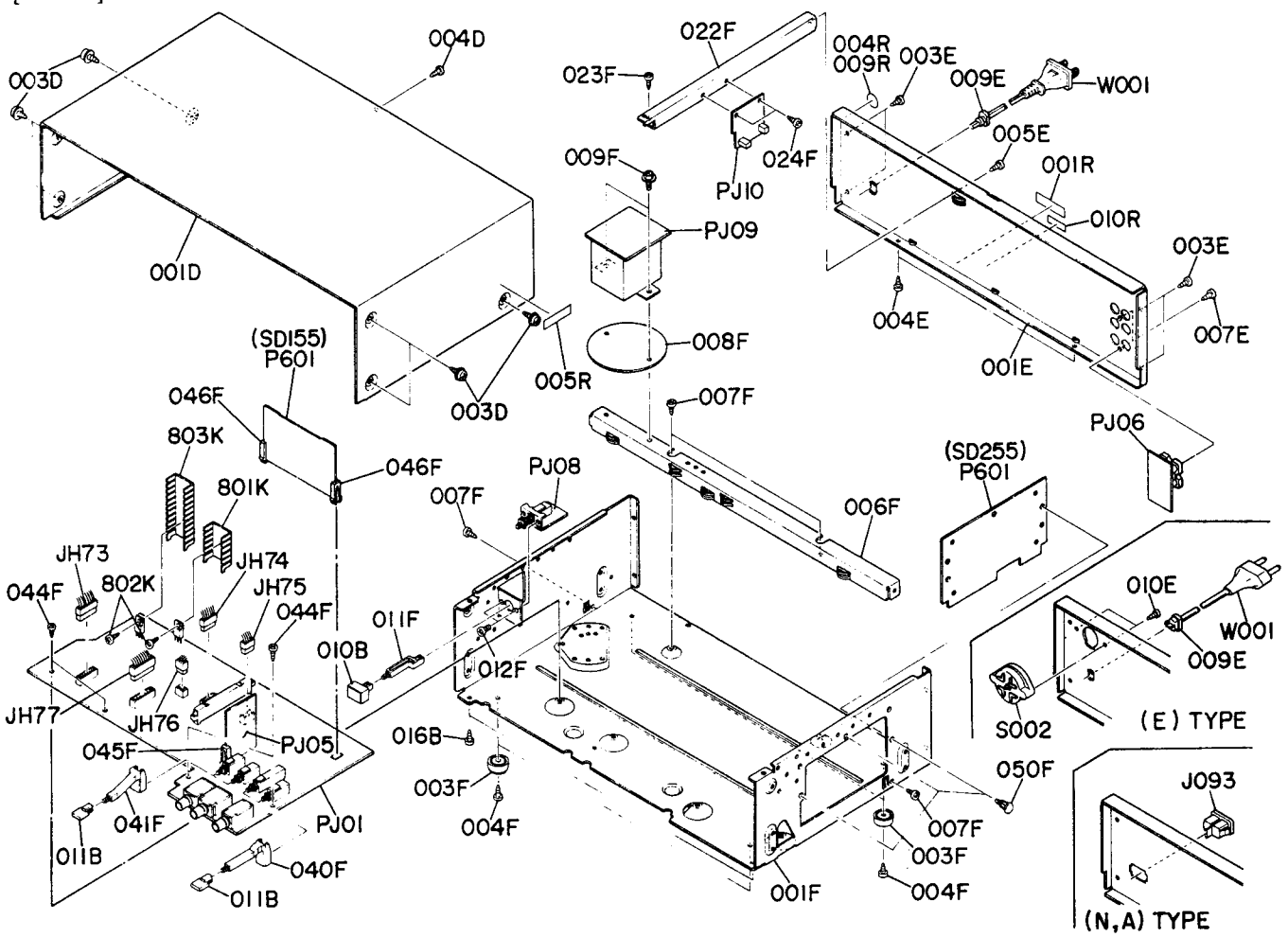


- (U): for U.S.A.
- (N): for Europe
- (E): for Europe
- (A): for Australia
- (P): for PX
- (F): for Japan

REF. DESIG.	PART NO.	DESCRIPTION
A	261T248400	Front Panel Assembly, Black (SD255)
A1	261T248410	Front Panel Assembly, Gold (SD255)
001B	260T248030	Front Panel, Black
001B	260T248070	Front Panel, Gold
005B	161T274010	Reflector, Cassette
006B	260T158010	Window, LED Meter
A	260T248400	Front Panel Assembly, Black (SD155)
A1	260T248410	Front Panel Assembly, Gold (SD155) [U]
001B	260T248010	Front Panel, Black
001B	260T248080	Front Panel, Gold [U]
005B	161T274010	Refrector, Cassette
006B	260T158010	Window, LED Meter
012B	143H154230	Knob, Rec Level; Black
	143H154330	Knob, Rec Level; Gold
015B	5128030880	B.H. Tapped Screw B3 x 8
016B	5128030880	B.H. Tapped Screw B3 x 8
020B	260T271010	Holder, LED
021B	260T303010	Mask, LED Meter; Black
	260T303030	Mask, LED Meter; Gold
022B	5128031080	B.H. Tapped Screw B3 x 10
024B	260T052010	Counter, Tape
025B	5128260680	B.H. Tapped Screw B2.6 x 6
001C	160T271110	Holder, Cassette; Black
	160T271210	Holder, Cassette; Gold
002C	150T115010	Spring, Cassette Hold
004C	260T053010	Cover, Cassette Holder; (A), Black
	260T053040	Cover, Cassette Holder; (A), Gold
005C	260T053020	Cover, Cassette Holder; (B), Black
	260T053050	Cover, Cassette Holder; (B), Gold
006C	177T158020	Window, Cassette Cover

REF. DESIG.	PART NO.	DESCRIPTION
010C	160T270610	Button, Rec; Black
	160T270310	Button, Rec; Gold
011C	160T270620	Button, Play; Black
	160T270320	Button, Play; Gold
012C	160T270630	Button, REW, Black
	160T270330	Button, REW, Gold
013C	160T270640	Button, FF; Black
	160T270340	Button, FF; Gold
014C	160T270650	Button, Stop; Black
	160T270350	Button, Stop; Gold
015C	160T270660	Button, Pause; Black
	160T270360	Button, Pause; Gold
015F	120T276010	Piston, Air Dumper
016F	160T112020	Shaft
017F	53110201E0	Hexagon Nut M2
018F	54040202A0	Spring Washer
020F	5128030880	B.H. Tapped Screw B3 x 8
021F	260T104010	Retainer, Mecha
025F	260T104020	Retainer, Rec Arm
026F	5128260680	B.H. Tapped Screw B2.6 x 6
027F	260T002010	Arm, Rec
028F	150T055010	Collar, Rec Arm
029F	51100308A0	B.H.M. Screw B3 x 8
030F	260T121030	Link, Rec
032F	316Y264030	Belt, Counter
034F	160T104010	Retainer, Cassette Door; (R)
035F	160T104020	Retainer, Cassette Door; (L)
036F	160T115010	Spring, Cassette Door
037F	5128030880	B.H. Tapped Screw B3 x 8
008R	113T861010	Label, 2 Year [U]
A001	260T304500	Mechanism Assembly
B001	260T304510	Mechanism Assembly

[C02-99] TOP COVER AND MAIN CHASSIS

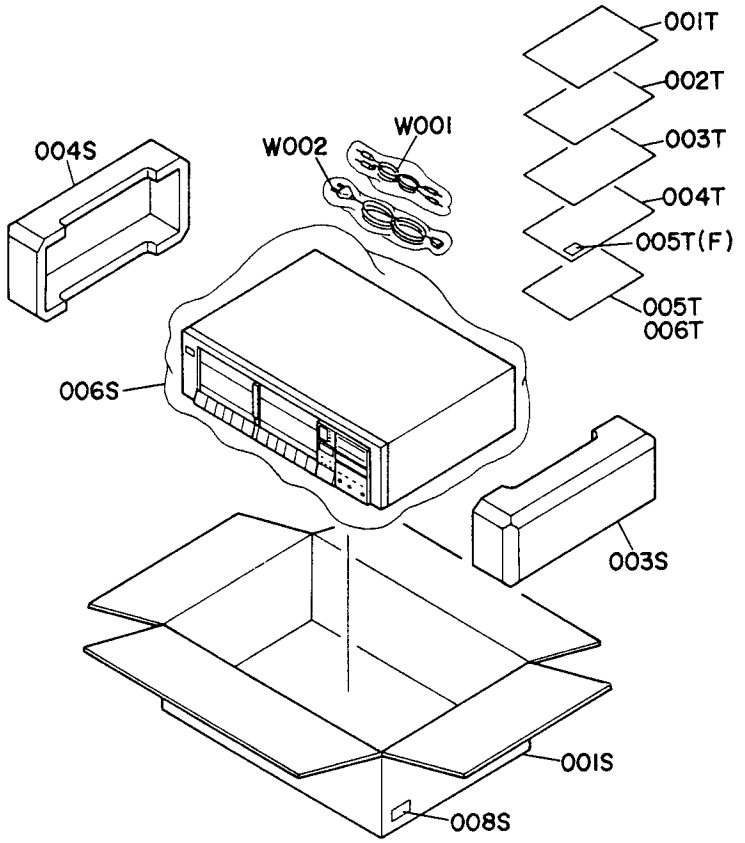


REF. DESIG.	PART NO.	DESCRIPTION
010B	135H154350	Knob, Power Switch; Black
	135H154150	Knob, Power Switch; Gold
011B	129T154130	Knob, Push Switch; Black
	129T154030	Knob, Push Switch; Gold
016B	5128030880	B.H. Tapped Screw B3 x 8
001D	260T257010	Lid, Top Cover; Black
	260T257020	Lid, Top Cover; Gold
003D	51260408U0	B.T. Screw B4 x 8
004D	51280308U0	B.H. Tapped Screw B3 x 8
001E	261T250010	Rear Panel, (SD255) [U]
	261T250020	Rear Panel, (SD255) [N, A]
	261T250030	Rear Panel, (SD255) [E, P]
	261T250040	Rear Panel, (SD255) [F]
	260T250010	Rear Panel, (SD155) [U]
	260T250020	Rear Panel, (SD155) [N, A]
	260T250030	Rear Panel, (SD155) [E]
	260T250040	Rear Panel, (SD155) [F]
003E	5128030880	B.H. Tapped Screw B3 x 8
004E	5128030880	B.H. Tapped Screw B3 x 8
005E	5128030880	B.H. Tapped Screw B3 x 8
007E	5128030880	B.H. Tapped Screw B3 x 8
009E	1455259030	Bushing, AC Power Cord [U, E, P, F]
010E	5128030880	B.H. Tapped Screw B3 x 8 [E, P]
001F	260T105010	Chassis, Main
003F	011T057010	Leg
004F	5128040680	B.H. Tapped Screw B4 x 6
006F	260T160010	Bracket, Main PWB
007F	5128030880	B.H. Tapped Screw B3 x 8

REF. DESIG.	PART NO.	DESCRIPTION
008F	158T109010	Shield, Power Transformer
009F	52040408A0	H. Head Bolt, S.F H4 x 8
011F	289H121010	Link, Power Switch
012F	51100306A0	B.H.M. Screw B3 x 6
022F	260T126010	Stay, Mecha
023F	5128030880	B.H. Tapped Screw B3 x 8
024F	5128030880	B.H. Tapped Screw B3 x 8
040F	260T121010	Link, Push Switch; Dolby
041F	260T121020	Link, Push Switch; Dubbing
044F	5128030880	B.H. Tapped Screw B3 x 8
045F	156T101030	Support, Amp PWB
046F	177T101030	Support, Dolby PWB (SD155)
050F	177T101010	Support, Dolby PWB (SD255)
801K	202H267030	Heatsink
802K	5128030580	B.H. Tapped Screw B3 x 5
803K	203H267050	Heatsink
001R	2112265010	Indicator, Serial No. [U]
	2112265110	Indicator, Serial No. [N, E, A, P, F]
004R	9511101070	Label, UL
005R	2911861120	Label, Caution [N, E, A, P]
009R	2457861040	Label, CSA
010R	4581861010	Label, Made in Japan [N, A]
⚠ J093	YP04000580	Plug, AC Inlet [N, A]
JH71	YB00450110	Connective Cord, 4P
JH73	YB00160220	Connective Cord, 8P
JH75	YB00250110	Connective Cord, 6P
JH76	YB00201030	Connective Cord, 3P
JH77	YB00300990	Connective Cord, 10P
⚠ S002	BY05060060	Voltage, Selector [E]
⚠ W001	YC01900100	A.C. Power Cord [U]
	YC01900080	A.C. Power Cord [E, P, F]

M2992

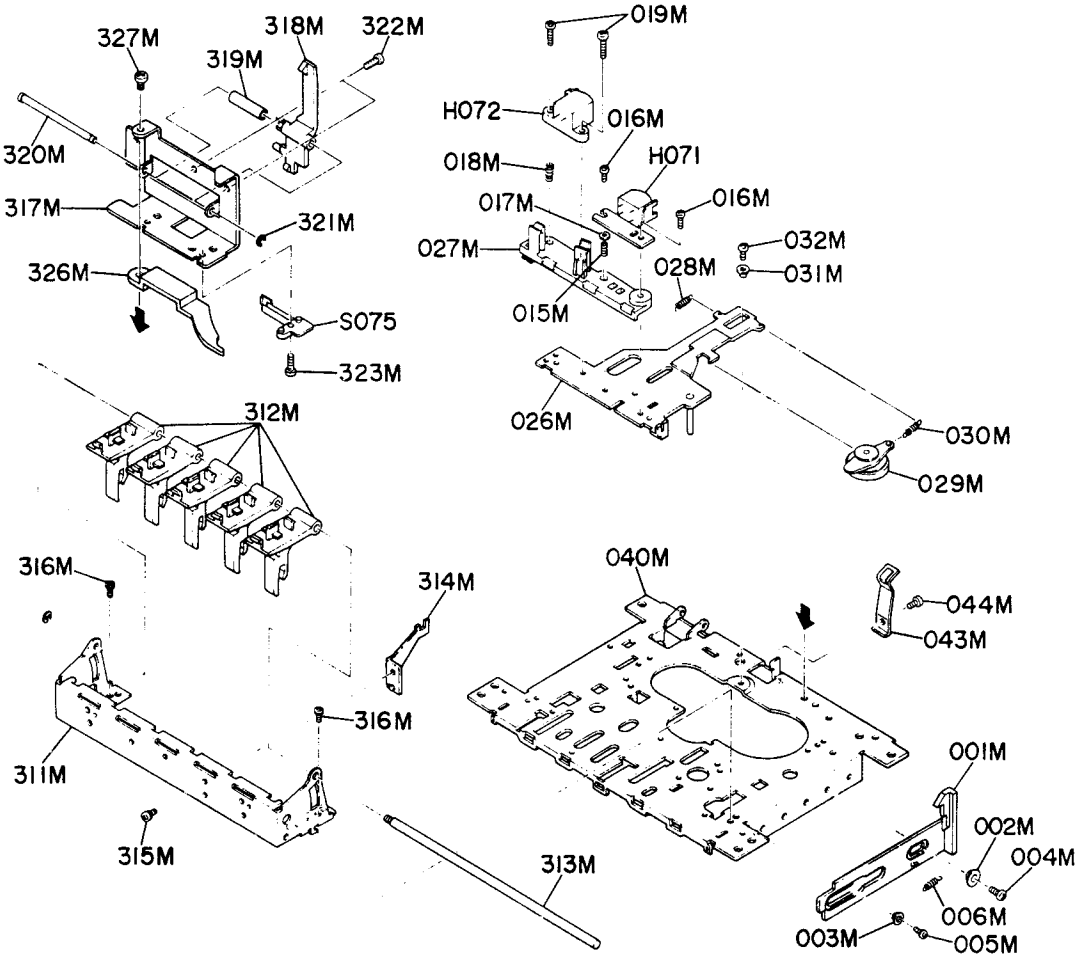
[H01-99] PACKING MATERIALS



REF. DESIG.	PART NO.	DESCRIPTION
		PACKING
001S	261T801010	Packing Case, (SD255) [U]
	261T801020	Packing Case, (SD255) [N, A, F]
	261T801030	Packing Case, (SD255) [E]
	261T801040	Packing Case, (SD255) [P]
	260T801010	Packing Case, (SD155) [U]
	260T801020	Packing Case, (SD155) [N, A, F]
	260T801030	Packing Case, (SD155) [E]
003S	260T809010	Cushion, (R)
004S	260T809020	Cushion, (L)
006S	9014323160	Polyethylene Bag
008S	9526019010	Serial No. Card [U]
	9526019060	Serial No. Card [N, E]
	9526019030	Serial No. Card [A]
	9526019050	Serial No. Card [P]
	9526019040	Serial No. Card [F]
001T	261T851210	User Manual [U]
	261T851310	User Manual [N, E, A, P]
	261T851110	User Manual [F]

REF. DESIG.	PART NO.	DESCRIPTION
002T	261T851220	User Manual, Spec [U]
	261T851320	User Manual, Spec [N, E, A, P]
	9631000130	Warranty Card [F]
003T	261T856010	Circuit Diagram, (SD255) [N, E]
	260T856010	Circuit Diagram, (SD155) [N, E]
	128T854010	Warranty Card [F]
004T	103H854010	Warranty Card [U]
	9631000090	Warranty Card [A]
	416H854010	Warranty Card [P]
	9611000050	User's Card [F]
005T	3435851210	User Manual [P]
	9540000010	License [F]
	180T854010	Warranty Card (SD155) [U]
006T	180T854010	Warranty Card (SD255) [U]
W001	ZD00400030	Connective Cord, PCA Pin
⚠ W002	ZC01805010	A.C. Power Cord [N]
	ZC02006020	A.C. Power Cord [A]

[P01-99] PARTS ASSEMBLED ON TOP OF CHASSIS (TAPE A)

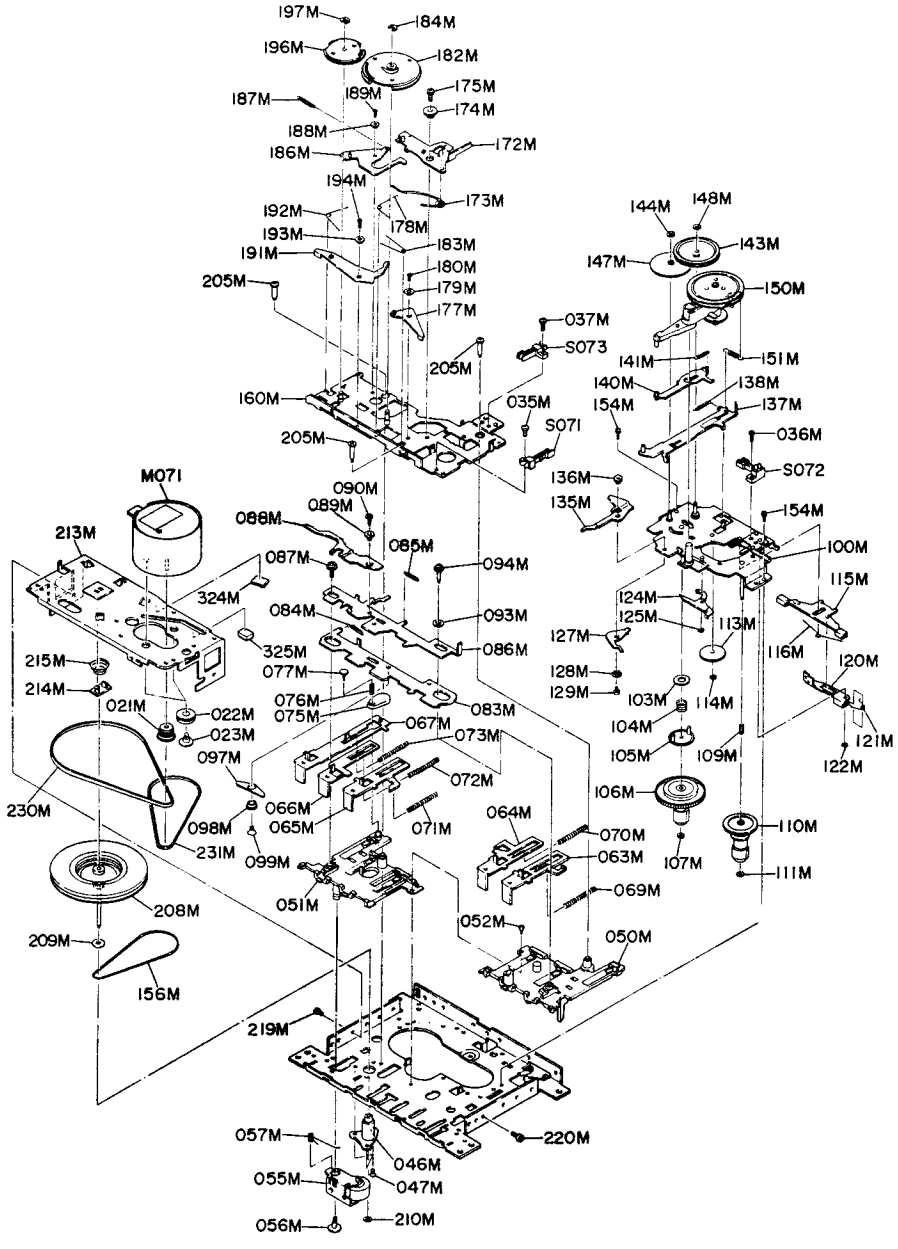


REF. DESIG.	PART NO.	DESCRIPTION	
001M	160T258010	Hook, Eject	
002M	252T055100	Collar, Lower	
003M	252T055110	Collar, Upper	
004M	5157260580	P. Taptite Screw	P2.6 x 5
005M	51440206A0	L. Washer Screw	L2 x 6
006M	252T115100	Spring, Eject Hook	
015M	252T115110	Spring, Head Azimuth	
016M	252T010100	Screw	
017M	252T012100	Washer	
018M	252T115110	Spring	
019M	51060208A0	P.H.M. Screw	P2 x 8
026M	252T105100	Chassis Assembly, Head	
027M	252T160110	Bracket, Head	
028M	252T115120	Spring	
029M	252T266100	Wheel, Take-up Idler	
030M	252T115130	Spring	
031M	252T055120	Collar	
032M	51102604S0	B.H.M. Screw	B2.6 x 4
040M	252T105110	Chassis, Main	

REF. DESIG.	PART NO.	DESCRIPTION	
043M	185T116200	Leaf Spring, Cassette Hold	
044M	5157260380	P. Taptite Screw	P2.6 x 3
311M	161T271200	Holder, Button	
312M	161T354220	Lever, Button	
313M	161T112200	Shaft, Button Lever	
314M	161T126200	Stay	
315M	51440204A0	L. Washer Screw	L2 x 4
316M	51442604A0	L. Washer Screw	L2.6 x 4
317M	185T160200	Bracket, Tape Selector	
318M	185T002200	Arm, Selector CrO_2	
319M	185T055200	Collar	
320M	185T112200	Shaft	
321M	64001500R0	RG Ring, E Type	ϕ1.5
322M	51062603E0	P.H.M. Screw	P2.6 x 3
323M	51060204A0	P.H.M. Screw	P2 x 4
326M	188T002020	Arm, Tape Selector	
327M	51102603A0	B.H.M. Screw	B2.6 x 3
H071	LH42821050	Head, Rec/Play	
H072	LH39000030	Head, Erase; Dammy	
S075	SM01011300	Mini Switch, Selector	

M2994

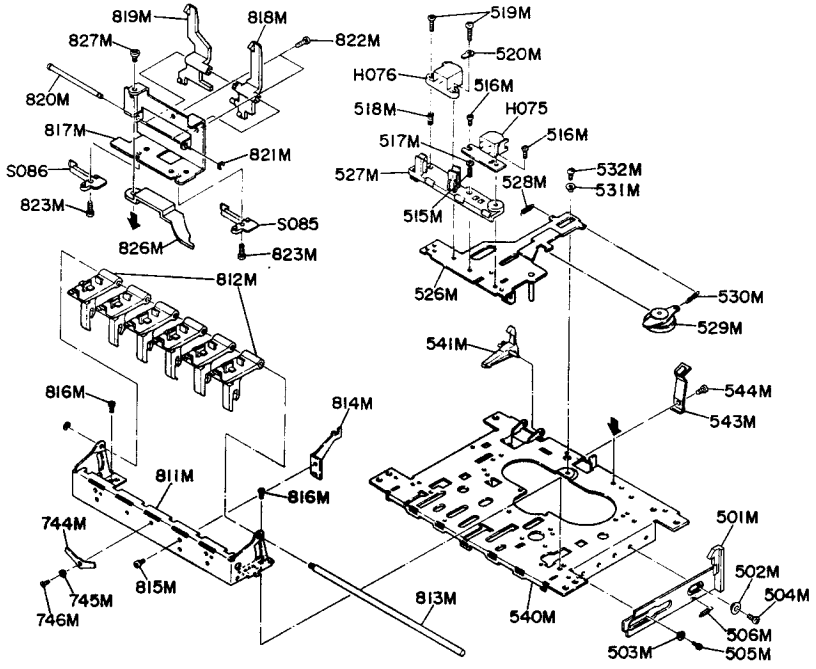
[P02-99] PARTS ASSEMBLED ON REVERSE OF CHASSIS (TAPE A)



REF. DESIG.	PART NO.	DESCRIPTION
021M	260T262200	Pulley, Motor
022M	252T259100	Bushing
023M	252T010110	Screw
035M	51060204A0	P.H.M. Screw P2 x 4
036M	51060204A0	P.H.M. Screw P2 x 4
037M	51060204A0	P.H.M. Screw P2 x 4
046M	252T106100	Sustainer, Capstan
047M	5184020350	F.H.M. Screw F2 x 3
050M	252T160120	Bracket, (L)
051M	252T160130	Bracket, (R)
052M	252T010120	Screw
055M	252T354110	Lever Assembly, Pinch Arm
056M	252T114110	Stopper
057M	161T115200	Spring
063M	161T121210	Link, Play
064M	161T121220	Link, REW
065M	161T121230	Link, FF
066M	161T121240	Link, Stop
067M	161T121250	Link, Pause
069M	252T115150	Spring, Play
070M	252T115150	Spring, REW
071M	252T115160	Spring, FF
072M	252T115170	Spring, Stop
073M	252T115160	Spring, Pause
075M	252T054100	Cam, Pause Lock
076M	252T115180	Spring
077M	252T114120	Stopper
083M	252T102100	Lock, Button
084M	252T115200	Spring, Button Lock
085M	252T115210	Spring, Motor SW.
086M	252T127100	Control Board
087M	252T010130	Screw
088M	252T354140	Lever, Eject Kick
089M	252T055160	Collar
090M	51840225A0	F.H.M. Screw F2 x 2.5
093M	54020401A0	Flat Washer, P
094M	252T010140	Screw
097M	252T354250	Lever, C/R Stopper
098M	252T055180	Collar
099M	51840225A0	F.H.M. Screw F2 x 2.5
100M	161T160210	Bracket Assembly, Reel Base
103M	59050801G0	Washer
104M	252T115220	Spring
105M	252T266110	Wheel, Auto Stop Senser
106M	161T117210	Spindle, Take-up Reel
107M	161T114200	Stopper
109M	161T115240	Spring
110M	161T117200	Spindle, Supply Reel
111M	161T114200	Stopper
113M	252T058100	Gear, FF
114M	252T114100	Stopper
115M	161T354200	Lever Assembly, Brake Arm
116M	161T115210	Spring
120M	252T354150	Lever, Auto Stop Canceler
121M	252T115240	Spring
122M	64001500R0	RG Ring, E Type ϕ1.5
124M	252T354170	Lever, Head Kick
125M	64001200R0	RG Ring, E Type ϕ1.2
127M	252T354160	Lever, Idler Kick

REF. DESIG.	PART NO.	DESCRIPTION
128M	252T055160	Collar
129M	5184024550	F.H.M. Screw F2 x 4.5
135M	252T354190	Lever, Release
136M	252T055130	Collar
137M	252T121160	Link Assembly, F/R Slide Lever
138M	161T115300	Spring
140M	252T354180	Lever, Sensing
141M	252T115250	Spring
143M	252T262110	Pulley, Auto Stop
144M	252T114100	Stopper
147M	252T058110	Gear, Auto Stop
148M	252T114100	Stopper
150M	252T262700	Pulley, F/R Clutch
151M	161T115230	Spring
154M	51440204A0	L. Washer Screw L2 x 4
156M	252T264110	Belt, Auto Stop
160M	161T160220	Bracket Assembly, Sub Chassis
172M	252T354240	Lever, Head Lift Arm
173M	252T115350	Spring
174M	252T055140	Collar
175M	51442606A0	L. Washer Screw L2.6 x 6
177M	252T254210	Pin, Trigger
178M	252T115320	Spring
179M	252T055150	Collar
180M	51840228A0	F.H.M. Screw F2 x 2.8
182M	252T058120	Gear, Main
183M	252T115310	Spring, Main Gear
184M	64000200R0	RG Ring, E Type ϕ2
186M	252T354230	Lever Assembly, Pause Sift
187M	252T115340	Spring
188M	252T055160	Collar
189M	51840228A0	F.H.M. Screw F2 x 2.8
191M	252T354220	Lever, Pause Gear
192M	252T115330	Spring
193M	252T055160	Collar
194M	51840228A0	F.H.M. Screw F2 x 2.8
196M	252T058130	Gear, Pause Sift
197M	64000200R0	RG Ring, E Type ϕ2
205M	252T010150	Screw, Sub Chassis
208M	161T059200	Capstan, Flywheel
209M	59264705G9	Washer
210M	316Y114030	Stopper, Oil Fence
213M	161T160200	Bracket, Retainer
214M	252T164100	Adjuster
215M	252T115270	Spring
219M	51060204A0	P.H.M. Screw P2 x 4
220M	51440204A0	L. Washer Screw L2 x 4
230M	185T264200	Belt, Main
231M	185T264210	Belt, FF/REW
324M	185T056200	Buffer, Motor
325M	185T056210	Buffer, Belt
M071	MM11205100	D.C. Motor, 1600/3200 12V
S071	SM01011190	Mini Switch, Motor
S072	SM01011160	Mini Switch, FF/REW
S073	SM01011190	Mini Switch, Play Mute

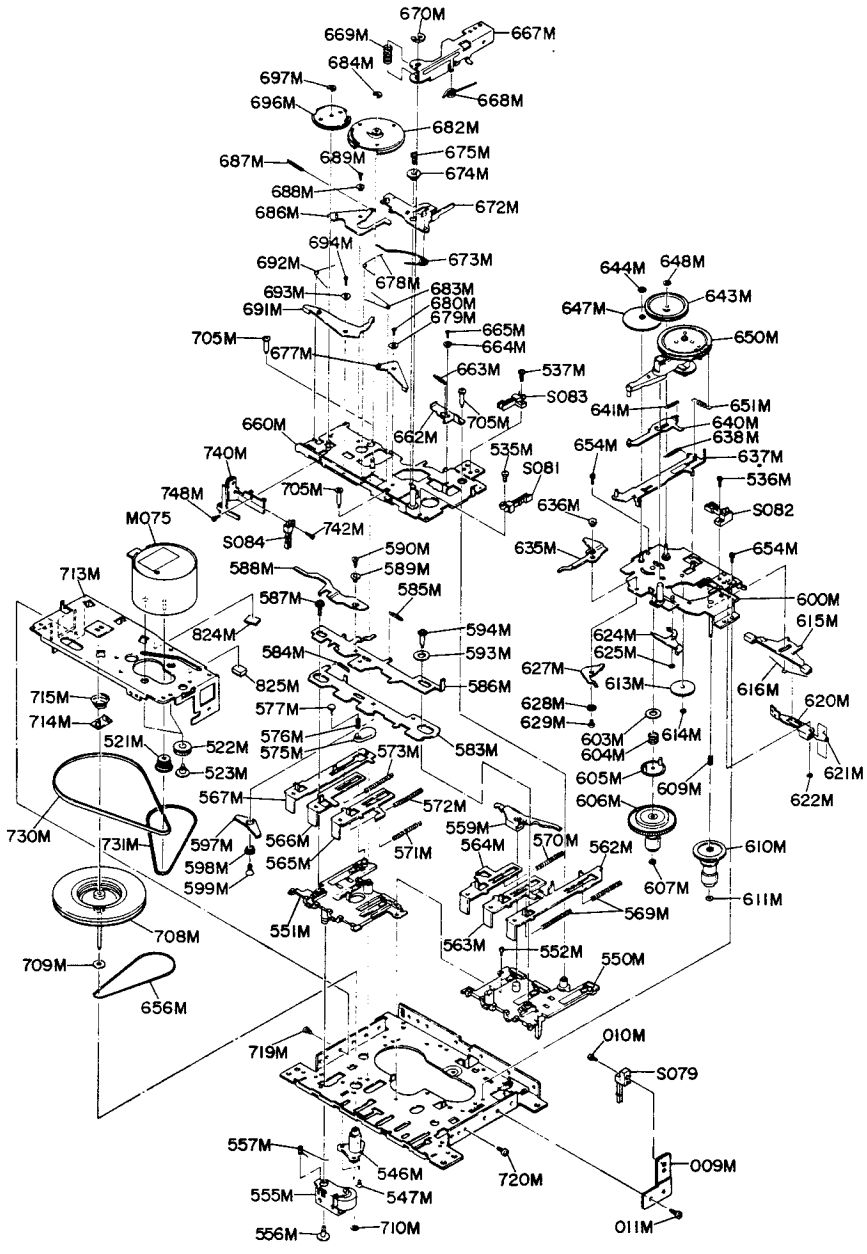
[P03-99] PARTS ASSEMBLED ON TOP OF CHASSIS (TAPE B)



REF. DESIG.	PART NO.	DESCRIPTION	
501M	160T258010	Hook, Eject	
502M	252T055100	Collar, Lower	
503M	252T055110	Collar, Upper	
504M	5157260580	P. Taptite Screw	P2.6 x 5
505M	51440206A0	L. Washer Screw	L2 x 6
506M	252T115100	Spring, Eject Hook	
515M	252T115110	Spring, Head Azimuth	
516M	252T010100	Screw	
517M	252T012100	Washer	
518M	252T115110	Spring	
519M	51060208A0	P.H.M. Screw	P2 x 8
520M	62021030W0	Lug	
526M	252T105100	Chassis Assembly, Head	
527M	252T160110	Bracket, Head	
528M	252T115120	Spring	
529M	252T266100	Wheel, Take-up Idler	
530M	252T115130	Spring	
531M	252T055120	Collar	
532M	51102604S0	B.H.M. Screw	B2.6 x 4
540M	252T105110	Chassis, Main	
541M	252T354100	Lever, Rec Arm	
543M	185T116200	Leaf Spring, Cassette Hold	
544M	5157260380	P. Taptite Screw	P2.6 x 3
744M	161T354240	Lever, Pause Switch	
745M	252T055160	Collar	

REF. DESIG.	PART NO.	DESCRIPTION	
746M	5184020350	F.H.M. Screw	F2 x 3
811M	161T271200	Holder, Button	
812M	161T354220	Lever, Button	
813M	161T112200	Shaft, Button Lever	
814M	161T126200	Stay	
815M	51440204A0	L. Washer Screw	L2 x 4
816M	51442604A0	L. Washer Screw	L2.6 x 4
817M	185T160200	Bracket, Tape Selector	
818M	185T002200	Arm, Selector CrO_2	
819M	185T002210	Arm, Selector METAL	
820M	185T112200	Shaft	
821M	64001500R0	RG Ring, E Type	ϕ1.5
822M	51062603E0	P.H.M. Screw	P2.6 x 3
823M	51060204A0	P.H.M. Screw	P2 x 4
826M	188T002020	Arm, Tape Selector	
827M	51102603A0	B.H.M. Screw	B2.6 x 3
H075	LH42821050	Head, Rec/Play	
H076	LH31000580	Head, Erase	
S085	SM01011300	Mini Switch, CrO_2	
S086	SM01011300	Mini Switch, Metal	

[P04-99] PARTS ASSEMBLED ON REVERSE OF CHASSIS (TAPE B)



REF. DESIG.	PART NO.	DESCRIPTION
009M	188T160040	Bracket, Rec Switch
010M	51062605A0	P.H.M. Screw P2.6 x 5
011M	51572604B0	P. Taptite Screw P2.6 x 4
521M	260T262200	Pulley, Motor
522M	252T259100	Bushing
523M	252T010110	Screw
535M	51060204A0	P.H.M. Screw P2 x 4
536M	51060204A0	P.H.M. Screw P2 x 4
537M	51060204A0	P.H.M. Screw P2 x 4
546M	252T106100	Sustainer, Capstan
547M	51840203S0	F.H.M. Screw F2 x 3
550M	252T160120	Bracket, (L)
551M	252T160130	Bracket, (R)
552M	252T010120	Screw
555M	252T354110	Lever Assembly, Pinch Arm
556M	252T114110	Stopper
557M	161T115200	Spring
559M	252T354120	Lever, Rec Inter Lock
562M	161T121200	Link, Rec
563M	161T121210	Link, Play
564M	161T121220	Link, REW
565M	161T121230	Link, FF
566M	161T121240	Link, Stop
567M	161T121250	Link, Pause
569M	252T115150	Spring, Rec/Play
570M	252T115150	Spring, REW
571M	252T115160	Spring, FF
572M	252T115170	Spring, Stop
573M	252T115160	Spring, Pause
575M	252T054100	Cam, Pause Lock
576M	252T115180	Spring
577M	252T114120	Stopper
583M	252T102200	Lock, Button
584M	252T115200	Spring, Button Lock
585M	252T115210	Spring, Motor SW.
586M	252T127100	Control Board
587M	252T010130	Screw
588M	252T354140	Lever, Eject Kick
589M	252T055160	Collar
590M	51840225A0	F.H.M. Screw F2 x 2.5
593M	54020401A0	Flat Washer, P.
594M	252T010140	Screw
597M	252T354250	Lever, C/R Stopper
598M	252T055180	Collar
599M	51840225A0	F.H.M. Screw F2 x 2.5
600M	161T160210	Bracket Assembly, Reel Base
603M	59050801G0	Washer
604M	252T115220	Spring
605M	252T266110	Wheel, Auto Stop Senser
606M	161T117210	Spindle, Take-up Reel
607M	161T114200	Stopper
609M	161T115240	Spring
610M	161T117200	Spindle, Supply Reel
611M	161T114200	Stopper
613M	252T058100	Gear, FF
614M	252T114100	Stopper
615M	161T354200	Lever Assembly, Brake Arm
616M	161T115210	Spring
620M	252T354150	Lever, Auto Stop Canceler
621M	252T115240	Spring
622M	64001500R0	RG Ring, E Type φ1.5
624M	252T354170	Lever, Head Kick
625M	64001200R0	RG Ring, E Type φ1.2
627M	252T354160	Lever, Idler Kick
628M	252T055160	Collar
629M	5184024SS0	F.H.M. Screw F2 x 4.5
635M	252T354190	Lever, Release
636M	252T055130	Collar

REF. DESIG.	PART NO.	DESCRIPTION
637M	252T121160	Link Assembly, F/R Slide Lever
638M	161T115300	Spring
640M	252T354180	Lever, Sensing
641M	252T115250	Spring
643M	252T262110	Pulley, Auto Stop
644M	252T114100	Stopper
647M	252T058110	Gear, Auto Stop
648M	252T114100	Stopper
650M	252T262700	Pulley, F/R Clutch
651M	161T115230	Spring
654M	51440204A0	L. Washer Screw L2 x 4
656M	252T264110	Belt, Auto Stop
660M	161T160220	Bracket Assembly, Sub Chassis
662M	252T121170	Link, Rec Function
663M	252T115280	Spring
664M	252T055160	Collar
665M	51840228A0	F.H.M. Screw F2 x 2.8
667M	252T354200	Lever, Rec Function Arm
668M	252T115290	Spring, Over Stroke
669M	252T115300	Spring
670M	64000300R0	RG Ring, E Type φ3
672M	252T354240	Lever, Head Lift Arm
673M	252T115350	Spring
674M	252T055140	Collar
675M	51442606A0	L. Washer Screw L2.6 x 6
677M	252T354210	Lever, Trigger
678M	252T115320	Spring
679M	252T055150	Collar
680M	51840228A0	F.H.M. Screw F2 x 2.8
682M	252T058120	Gear, Main
683M	252T115310	Spring, Main Gear
684M	64000200R0	RG Ring, E Type φ2
686M	252T354230	Lever Assembly, Pause Sift
687M	252T115340	Spring
688M	252T055160	Collar
689M	51840228A0	F.H.M. Screw F2 x 2.8
691M	252T354220	Lever, Pause Gear
692M	252T115330	Spring
693M	252T055160	Collar
694M	51840228A0	F.H.M. Screw F2 x 2.8
696M	252T058130	Gear, Pause Sift
697M	64000200R0	RG Ring, E Type φ2
705M	252T010150	Screw, Sub Chassis
708M	161T059200	Capstan, Flywheel
709M	59264705G9	Washer
710M	316Y114030	Stopper, Oil Fence
713M	161T160200	Bracket, Retainer
714M	252T164100	Adjuster
715M	252T115270	Spring
719M	51060204A0	P.H.M. Screw P2 x 4
720M	51440204A0	L. Washer Screw L2 x 4
730M	185T264200	Belt, Main
731M	185T264210	Belt, FF/REW
740M	161T160490	Bracket Assembly, Pause Switch
742M	51060204A0	P.H.M. Screw P2 x 4
748M	51440204A0	L. Washer Screw L2 x 4
824M	185T056200	Buffer, Motor
825M	185T056210	Buffer, Belt
M075	MM11205100	D.C. Motor, 1600/3200 12V
S079	SM01011020	Mini Switch, Rec
S081	SM01011190	Mini Switch, Motor
S082	SM01011160	Mini Switch, FF/REW
S083	SM01011190	Mini Switch, Play Mute
S084	SM01011190	Mini Switch, Pause

ASSIGNMENT OF COMMON PARTS CODES.

RESISTOR

R***: (1) GD05---140, Carbon film fixed resistor, ±5%, 1/4W
R***: (2) GD05---160, Carbon film fixed resistor, ±5%, 1/6W

① — Resistance value

Examples

① Resistance value

0.1Ω...001	10Ω...100	1kΩ...102	100kΩ...104
0.5Ω...005	18Ω...180	2.7kΩ...272	680kΩ...684
1Ω...010	100Ω...101	10kΩ...103	1MkΩ...105
6.8Ω...068	390Ω...391	22kΩ...223	4.7MkΩ...475

(Note) Please distinguish 1/4W from 1/6W by the shape of parts used actually.

C***: CERAMIC CAP.

(1) DD1---370, Ceramic condenser
Disc type
①② Temp. coeff. P350 ~ N1000, 50V
Capacity value
Tolerance

Examples

① Tolerance (Capacity deviation)
±0.25pF...0
±0.5pF...1
±5%...5

* Tolerance of COMMON PARTS handled here are as follows:
0.5pF ~ 5pF...±0.25pF
6pF ~ 10pF...±0.5pF
12pF ~ 560pF...±5%

② Capacity value

0.5pF...005	3pF...030	100pF...101
1pF...010	10pF...100	220pF...221
1.5pF...015	47pF...470	560pF...561

C***: CERAMIC CAP.

(1) DK16---300, High dielectric constant ceramic condenser
Disc type
① Temp. chara. 2B4, 50V
Capacity value

Example

② Capacity value

100pF...101	1000pF...102	10000pF...103
470pF...471	2200pF...222	

C***: ELECTROLY CAP. (⧧), FILM CAP. (⧦)

(1) EA------10, Electrolytic condenser
One-way lead type, Tolerance ±20%
①②
Dielectric strength
Capacity value

Examples

① Capacity value

0.1μF...104	4.7μF...475	100μF...107
0.33μF...334	10μF...106	330μF...337
1μF...105	22μF...226	1100μF...108
		2200μF...228

② Working voltage

6.3V...006	25V...025
10V...010	35V...035
16V...016	50V...050

(2) DF15---350, Plastic film condenser
One-way type, Mylar ±5% 50V
①
Capacity value

Examples

① Capacity value

0.001μF (1000pF)...102	0.1μF...104
0.0018μF.....182	0.56μF...564
0.01μF.....103	1μF...105
0.015μF.....153	

14. ELECTRICAL PARTS LIST

- ●(U): for U.S.A.
- ●(N): for Europe
- ●(E): for Europe
- ●(A): for Australia
- ●(P): for PX
- ●(F): for Japan

REF. DESIG.	PART NO.	DESCRIPTION
		PJ01-MAIN CIRCUIT BOARD
PJ01	YK260T10A0	P.W. Board, Main
	ZZ261T10A0	P.W. Board Assembly (SD255)
	ZZ260T10A0	P.W. Board Assembly (SD155)
		PJ01-CAPACITORS
CE03	DD15101300	Ceramic 100pF ±5% 50V
CE04	DD15101300	Ceramic 100pF ±5% 50V
CE07	DK18103310	Ceramic 0.01μF 50V
CJ01	DD15681370	Ceramic 680pF ±5% 50V
CJ02	DD15681370	Ceramic 680pF ±5% 50V
CK15	DD15101300	Ceramic 100pF ±5% 50V
CK16	DD15101300	Ceramic 100pF ±5% 50V
CK25	DD15220300	Ceramic 22pF ±5% 50V
CK26	DD15220300	Ceramic 22pF ±5% 50V
CL01	DF15182550	Film 1800pF ±5% 100V
CM01	DK18473310	Ceramic 0.047μF 100V
C853	DK18103310	Ceramic 0.01μF 50V
C854	DK18103310	Ceramic 0:01μF 50V
		PJ01-RESISTORS
RG05	GG05221120	220Ω ±5% ¼W
RG06	GG05221120	220Ω ±5% ¼W
RJ13	RA04720600	4.7KΩ, Trimming; P/B Level (L)
RJ14	RA04720600	4.7KΩ, Trimming; P/B Level (R)
RJ15	RA04720600	4.7KΩ, Trimming; P/B Level (L)
RJ16	RA04720600	4.7KΩ, Trimming; P/B Level (R)
RK01	RA04730600	47KΩ, Trimming
RK02	RA04730600	47KΩ, Trimming
RL02	GG05033140	3.3Ω ±5% ¼W
RL05	NF02100140	10Ω ±2% ¼W, Fuse
RL07	RA04730600	47KΩ, Trimming; Bias Adj (L)
RL08	RA04730600	47KΩ, Trimming; Bias Adj (R)
RS54	RA04720600	4.7KΩ, Trimming; Bias (Metal)
RS55	RA04730600	47KΩ, Trimming; Bias (CrO_2)
RX05	NK05680020	68Ω ±5% 2W, Metal
		PJ01-SEMICONDUCTORS
DJ01	HD20015210	Diode 1SS133
DJ02	HD20015210	Diode 1SS133
DJ03	HD20015210	Diode 1SS133
DM01	HD20015210	Diode 1SS133
DM02	HD20015210	Diode 1SS133
DM03	HD20015210	Diode 1SS133
DM05 ~ DM17	HD20015210	Diode 1SS133
DM18	HD20016210	Diode 1SR35-200
DM19	HD20016210	Diode 1SR35-200
DM20	HD20015210	Diode 1SS133
DM21	HD20015210	Diode 1SS133
DS51	HD10004020	Diode OA91A
DS52	HD10004020	Diode OA91A
DS53	HD20015210	Diode 1SS133
DS54	HD20015210	Diode 1SS133

M2998

REF. DESIG.	PART NO.	DESCRIPTION	
DT01	HD10004020	Diode	OA91A
DT02 ~ DT07	HD20015210	Diode	1SS133
⚠D801	HD20027080	Diode	RB-152
QE01	HT327841U0	Transistor	2SC2784(U)
QE02	HT327841U0	Transistor	2SC2784(U)
QG01	HT30001000	Transistor	2SC2458 etc.
QG02	HT30001000	Transistor	2SC2458 etc.
QJ01	HC10109050	IC	TA7405P
QJ03 ~ QJ08	HT30001000	Transistor	2SC2458 etc.
QK03	HT30001000	Transistor	2SC2458 etc.
QK04	HT30001000	Transistor	2SC2458 etc.
QK05	HT30001000	Transistor	2SC2458 etc.
QK06	HT30001000	Transistor	2SC2458 etc.
QK07	HC10003090	IC	NJM4558D
⚠QL01	HT404711K0	Transistor	2SD471(K)
⚠QL02	HT403131E0	Transistor	2SD313(E)
QL51	HT30001000	Transistor	2SC2458 etc.
⚠QM01	HT205072A0	Transistor	2SB507(D, E)
QM02	HT30001000	Transistor	2SC2458 etc.
QM03	HT30001000	Transistor	2SC2458 etc.
QM04	HT10001000	Transistor	2SA608SP etc.
QM05	HT10001000	Transistor	2SA608SP etc.
QM06 ~ QM09	HT30001000	Transistor	2SC2458 etc.
⚠QM10	HT205072A0	Transistor	2SB507(D, E)
QM11	HT30001000	Transistor	2SC2458 etc.
QM12	HC10052050	IC	TD62504P
QM13	HT30001000	Transistor	2SC2458 etc.
QM14	HT30001000	Transistor	2SC2458 etc.
QM15	HT30001000	Transistor	2SC2458 etc.
QM19	HT10001000	Transistor	2SA608SP etc.
QM20	HT30001000	Transistor	2SC2458 etc.
QM21	HT30001000	Transistor	2SC2458 etc.
QM22	HT30001000	Transistor	2SC2458 etc.
QM24 ~ QM29	HT30001000	Transistor	2SC2458 etc.
QS51	HT10001000	Transistor	2SA608SP etc.
QS52	HT10001000	Transistor	2SA608SP etc.
QS53	HT10001000	Transistor	2SA608SP etc.
QS54	HC10095050	IC	TD62554S
QT01	HT30001000	Transistor	2SC2458 etc.
QT02	HT30001000	Transistor	2SC2458 etc.
QT03	HT30001000	Transistor	2SC2458 etc.
QT04	HT30001000	Transistor	2SC2458 etc.
QT05	HT10001000	Transistor	2SA608SP etc.
QT06	HT30001000	Transistor	2SC2458 etc.
QT07	HT30001000	Transistor	2SC2458 etc.
QT09	HT30001000	Transistor	2SC2458 etc.
QT10	HT30001000	Transistor	2SC2458 etc.

REF. DESIG.	PART NO.	DESCRIPTION	
QY51	HT30001000	Transistor	2SC2458 etc.
QY52	HT30001000	Transistor	2SC2458 etc.
QY53	HT30001000	Transistor	2SC2458 etc.
Q606	HT30001000	Transistor	2SC2458 etc. (SD255)
Q651	HT30001000	Transistor	2SC2458 etc.
Q652	HT30001000	Transistor	2SC2458 etc.
⚠Q851	HC38512090	IC	78M12
⚠Q852	HC38512090	IC	78M12
		PJ01-MISCELLANEOUS	
JE01	YJ01002380	Jack, Mic (L) (Black)	
	YJ01002360	Jack, Mic (L) (Gold)	
JE02	YJ01002380	Jack, Mic (R) (Black)	
	YJ01002360	Jack, Mic (R) (Gold)	
JE03	YL01010110	Terminal, Earth	
JG01	YJ01002340	Jack, Headphones (Black)	
	YJ01002330	Jack, Headphones (Gold)	
JJ01	YP06002420	Plug, 6P; Rec/PB Head	
JJ02	YP06002400	Plug, 4P; PB Head	
JL01	YP06002360	Plug, 3P; Erase Head	
JM01	YP06002430	Plug, 8P	
JM02	YP06002450	Plug, 10P	
JV01	YJ06002390	Jack, 5P	
JW51	YJ06002430	Jack, 3P	
JW52	YJ06002430	Jack, 3P	
JX01	YJ06002440	Jack, 4P	
JY01	YJ06002390	Jack, 5P	
JY02	YJ06002390	Jack, 5P	
J801	YJ06002430	Jack, 3P	
LK01	LC24750700	Choke Coil, 4.7mH	
LK02	LC24750700	Choke Coil, 4.7mH	
LK03	LC22260700	Choke Coil, 22mH	
LK04	LC22260700	Choke Coil, 22mH	
LL01	TC10140300	OSC Transformer, 105KHz	
LL02	LC21550610	Choke Coil, 1.5mH	
SM01	SP06010140	Push Switch, Synchro Start	
SM02	SP02010630	Push Switch, Normal/High Speed	
SS51	SS09020180	Slide Switch, Rec/PB	
S601	SP02010630	Push Switch, Dolby ON/OFF	
S602	SP02010630	Push Switch, Dolby B/C (SD255)	
WM03	YU02220260	Jumper Lead, 2P	
WM04	YU02120260	Jumper Lead, 2P	

REF. DESIG.	PART NO.	DESCRIPTION
		PJ04-REC VOLUME/LED METER CIRCUIT BOARD
PJ04	YK260T10D0	P.W. Board, Rec Volume/LED Meter
	ZZ260T10D0	P.W. Board Assembly
		PJ04-RESISTORS
RV51	RX05030240	50KΩ, Variable; Rec Level (L)
RV52	RX05030240	50KΩ, Variable; Rec Level (R)
		PJ04-SEMICONDUCTORS
DX51 ≀ DX58	HI10063020	L.E.D., LN317GPH; Green
DX59	HI10062020	L.E.D., LN217RPH; Red
DX60	HI10062020	L.E.D., LN217RPH; Red
DX61	HI10062020	L.E.D., LN217RPH; Red
DX62	HI10062020	L.E.D., LN217RPH; Red
DY01	HI10038320	L.E.D., GL-9PG24; Green
DY02	HI10038320	L.E.D., GL-9PG24; Green
DY03	HI10038320	L.E.D., GL-9PG24; Green
DY29 ≀ DY32	HI10038320	L.E.D., GL-9PG24; Green
DY33	HI10032320	L.E.D., GL-9PR24; Red
DY34	HI10038320	L.E.D., GL-9PG24; Green
QX51	HC10006320	IC IR2E27A
		PJ04-MISCELLANEOUS
WV02	YU05200260	Jumper Lead, 5P
WX02	YU04200260	Jumper Lead, 4P
WY01	YU05260260	Jumper Lead, 5P
WY02	YU05200260	Jumper Lead, 5P
		PJ05-HIGH SPEED/DUBBING CIRCUIT BOARD
PJ05	YK260T10E0	P.W. Board, High Speed/Dubbing
	ZZ261T10E0	P.W. Board Assembly (SD255)
	ZZ260T10E0	P.W. Board Assembly (SD155)
		PJ05-CAPACITORS
CJ53	DD15220300	Ceramic 22pF ±5%
CJ54	DD15220300	Ceramic 22pF ±5%
		PJ05-RESISTOR
RJ63	NK05471120	470Ω ±5% ½W, Metal
		PJ05-SEMICONDUCTORS
QJ51	HT30001000	Transistor 2SC2458 etc.
QJ52	HT30001000	Transistor 2SC2458 etc.
QJ55	HC10003090	IC NJM4558D
		PJ05-MISCELLANOUS
JJ51	YP06002580	Plug, 8P
		PJ06-RCA JACK CIRCUIT BOARD
PJ06	YK260T10F0	P.W. Board, RCA Jack
	ZZ260T10F0	P.W. Board Assembly
JM05	YT02020330	Terminal, Pause Remote Jack
JW02	YT02040550	Terminal, RCA Jack; Line IN/OUT
WW51	YU03140260	Jumper Lead, 3P
WW52	YU03140260	Jumper Lead, 3P

REF. DESIG.	PART NO.	DESCRIPTION
		PJ08-POWER SWITCH CIRCUIT BOARD
PJ08	YK260H10H0	P.W. Board, Power Switch
	ZZ260H10H0	P.W. Board Assembly
⚠C871	DK18103310	Ceramic Cap. 0.01μF 50V
⚠S852	SP02010960	Push Switch, Power
W802	YU03200260	Jumper Lead, 3P
		PJ09-POWER TRANSFORMER CIRCUIT BOARD
PJ09	YK260H10I0	P.W. Board, Power Transformer
	ZZ260H10I0	P.W. Board Assembly [U]
	ZZ260H80I0	P.W. Board Assembly [N, A]
	ZZ260H70I0	P.W. Board Assembly [E]
⚠L001	TS14820170	Power Transformer [U]
	TS14820180	Power Transformer [N, A]
	TS14820190	Power Transformer [E]
	TS14820200	Power Transformer [F]
		PJ10-MOTOR SPEED ADJ. CIRCUIT BOARD
PJ10	YK260T10J0	P.W. Board, Motor Speed Adj.
	ZZ260T10J0	P.W. Board Assembly
RM47	RA04710600	Resistor, Trimming 470Ω
RM48	RA04710600	Resistor, Trimming 470Ω
RM53	RA01010600	Resistor, Trimming 100Ω
RM54	RA01010600	Resistor, Trimming 100Ω
DM22	HD20015210	Diode 1SS133
QM17	HT30001000	Transistor 2SC2458 etc.
QM18	HT30001000	Transistor 2SC2458 etc.
JM03	YJ06004000	Jack, 2P
JM04	YJ06004000	Jack, 2P
		P601-DOLBY B/C CIRCUIT BOARD
P601	YK301T0410	P.W. Board, Dolby B/C (SD255)
	ZZ301T8410	P.W. Board Assembly (SD255)
		P601-CAPACITORS
C615	EA68405010	Elect 0.68μF 50V
C616	EA68405010	Elect 0.68μF 50V
C627	EA68405010	Elect 0.68μF 50V
C628	EA68405010	Elect 0.68μF 50V
		P601-SEMICONDUCTORS
Q601	HC10003490	IC TEA0665
Q602	HC10003490	IC TEA0665
Q603	HT30001000	Transistor 2SC2458 etc.
Q604	HT30001000	Transistor 2SC2458 etc.

M 3000

REF. DESIG.	PART NO.	DESCRIPTION
		P601-MISCELLANEOUS
J601	YP06002570	Plug, 7P
J602	YP06002570	Plug, 7P
L601	LS10440010	M.P.X. Coil
L602	LS10440010	M.P.X. Coil
L603	LC23660610	Choke Coil, 36mH
L604	LC23660610	Choke Coil, 36mH
W601	YU07160260	Jumper Lead, 7P
W602	YU07160260	Jumper Lead, 7P
		P601-DOLBY-B CIRCUIT BOARD
P601	YK193T1010	P.W. Board, Dolby-B (SD155)
	ZZ193T8010	P.W. Board Assembly (SD155)
		P601-SEMICONDUCTORS
Q601	HC10058050	IC TA7629P
Q602	HC10058050	IC TA7629P
		P601-MISCELLANEOUS
J601	YP06002550	Plug, 5P
J602	YP06002550	Plug, 5P
L601	LS10440010	M.P.X. Coil
L602	LS10440010	M.P.X. Coil

(W01-99)	Assembly and Wiring
(T01-99)	Adjustment
(X01-00)	Correction

NOTE ON SAFETY:
Symbol ⚠ Fire or electrical shock hazard. Only original parts should be used to replace any part marked with symbol ⚠ . Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.

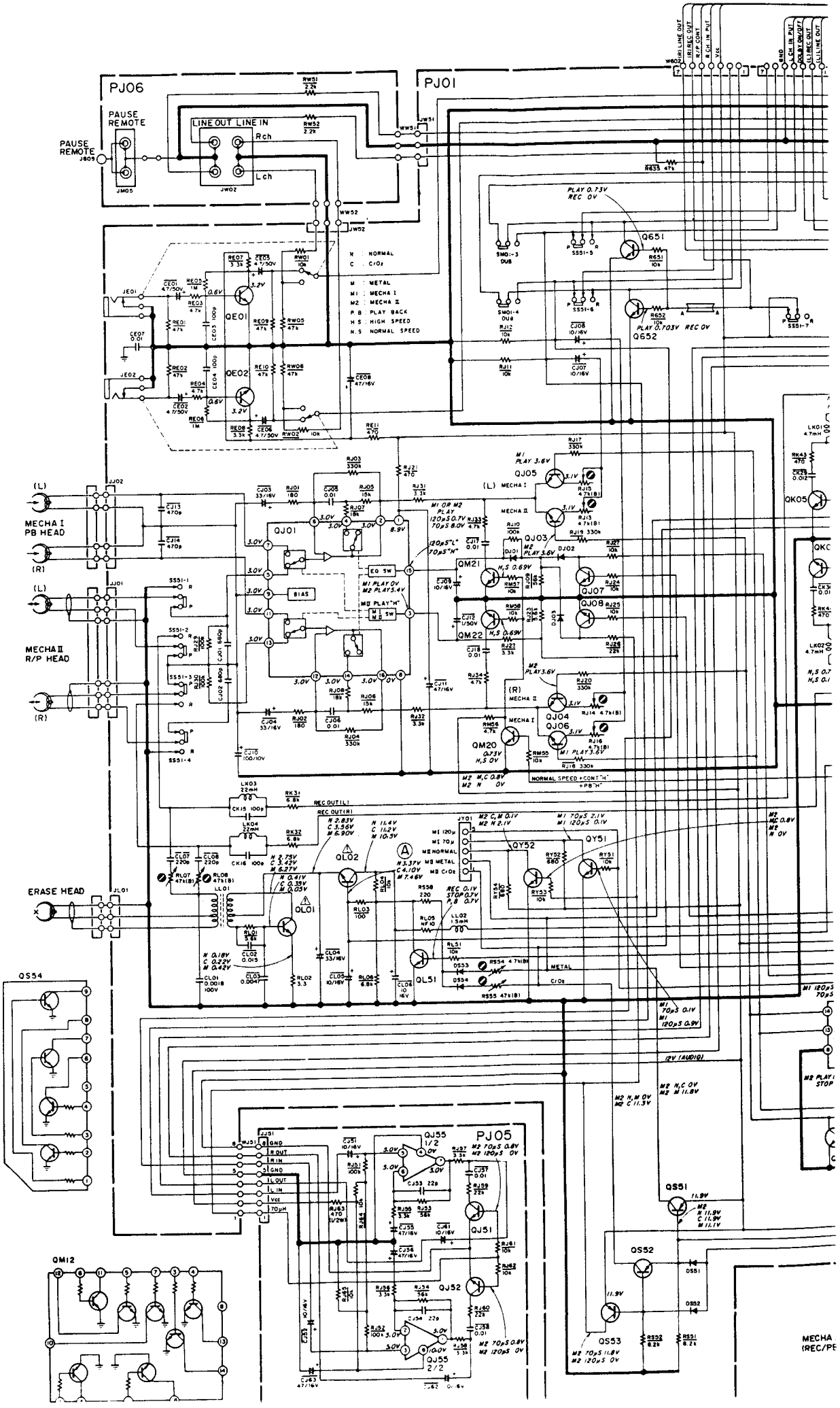
M3081

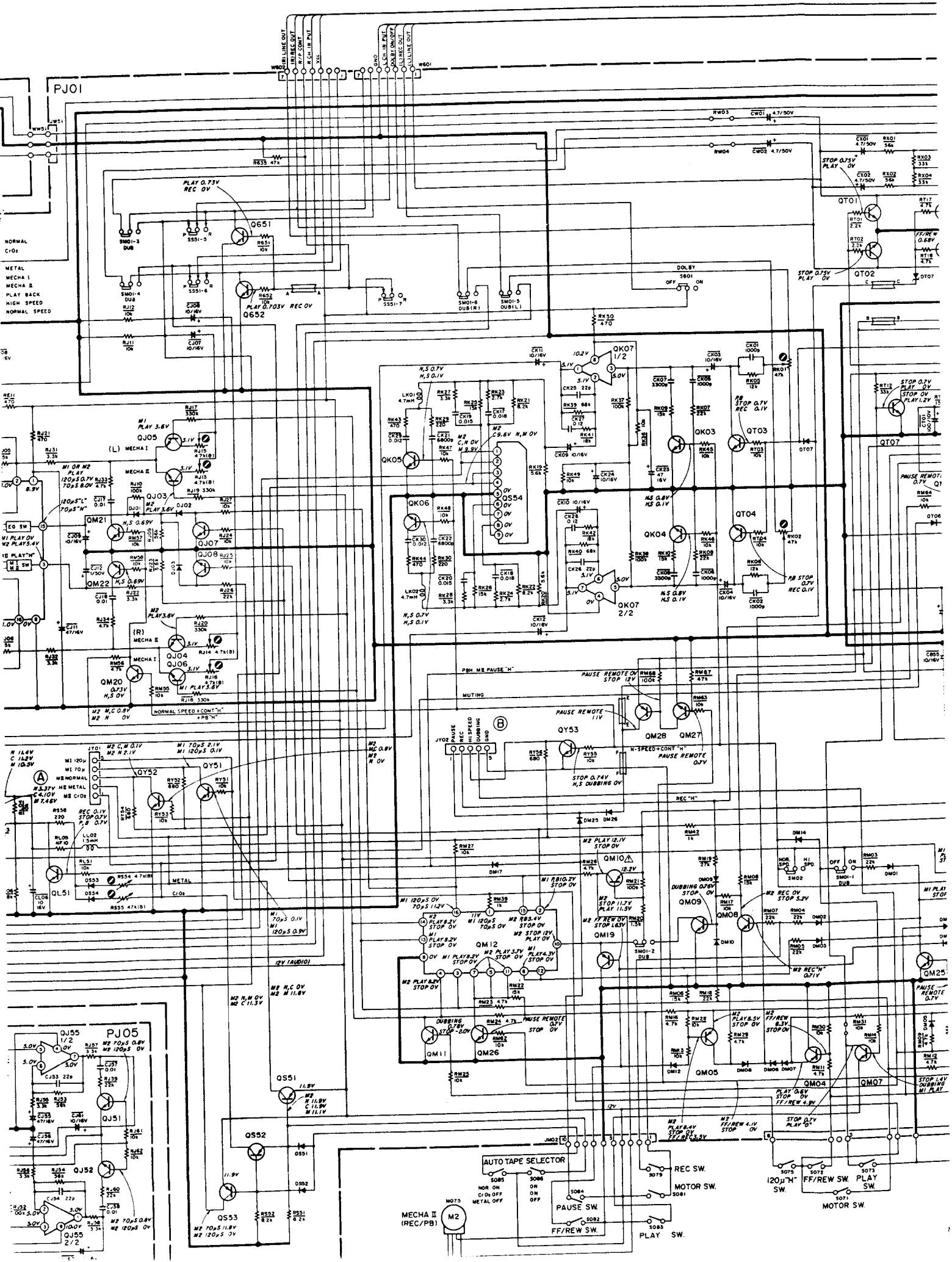
15. TECHNICAL SPECIFICATIONS

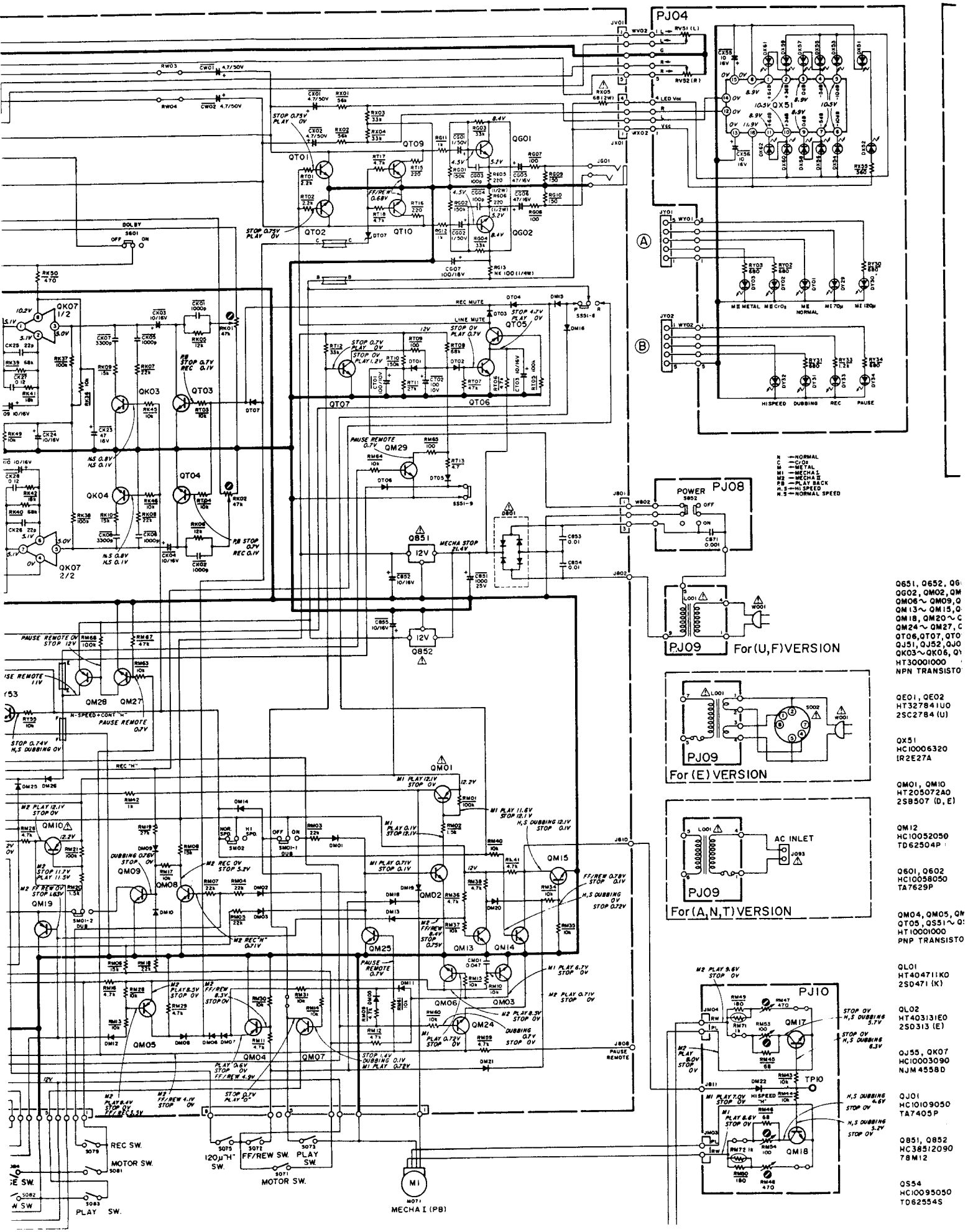
Style	Front load
Tape Drive System	Single Capstan Drive
Cartridge	Philips type compact cassette
Track System	Compatible Stereo 4-track 2-channel
Tape Speed	4.75 cm/sec
Heads	2 Head System
Composition	Rec/Play: Super Hard Metal Alloy
	Erase: Dual Gap Ferrite
Motor	2 Motor System
	Capstan: DC Servo Motor
	Mechanism: DC Motor
Overall Frequency Response at –20 dB	**(Model SD155)**
Normal Tape	30 Hz ~ 15 kHz
CrO_2 Tape	30 Hz ~ 16 kHz
Metal Tape	30 Hz ~ 17 kHz
	(Model SD255)
Normal Tape	30 Hz ~ 16 kHz
CrO_2 Tape	30 Hz ~ 17 kHz
Metal Tape	30 Hz ~ 18 kHz
Signal-to-Noise Ratio:	**(Model SD155)**
Dolby B (ON)	65 dB
Dolby (OFF)	55 dB
	(Model SD255)
Dolby B/C (ON)	65/70 dB
Dolby (OFF)	55 dB
Wow and Flutter	
DIN WTD	0.15 %
Outputs	
Line Level/Impedance	500 mV/2 k ohms
Headphone Level/Matching Impedance	50 mV/8 ohms
Input (Level at 0 VU)	
Line Sensitivity/Impedance	70 mV/40 k ohms
Mic Sensitivity/Impedance	0.3 mV/10 k ohms
Fast Rewind Time	90 sec. (C-60)
Fast Forward Time	90 sec. (C-60)
Power Requirements	
N and T Versions	220/240 V AC, 50/60 Hz
E Version	110/120/220/240 V AC, 50/60 Hz
Power Consumption	23 W
Dimensions	
Panel Width	420 mm
Panel Height	110 mm
Depth	260 mm
Weight	4.7 kg

Specifications and appearance are subject to change for modification without notice.

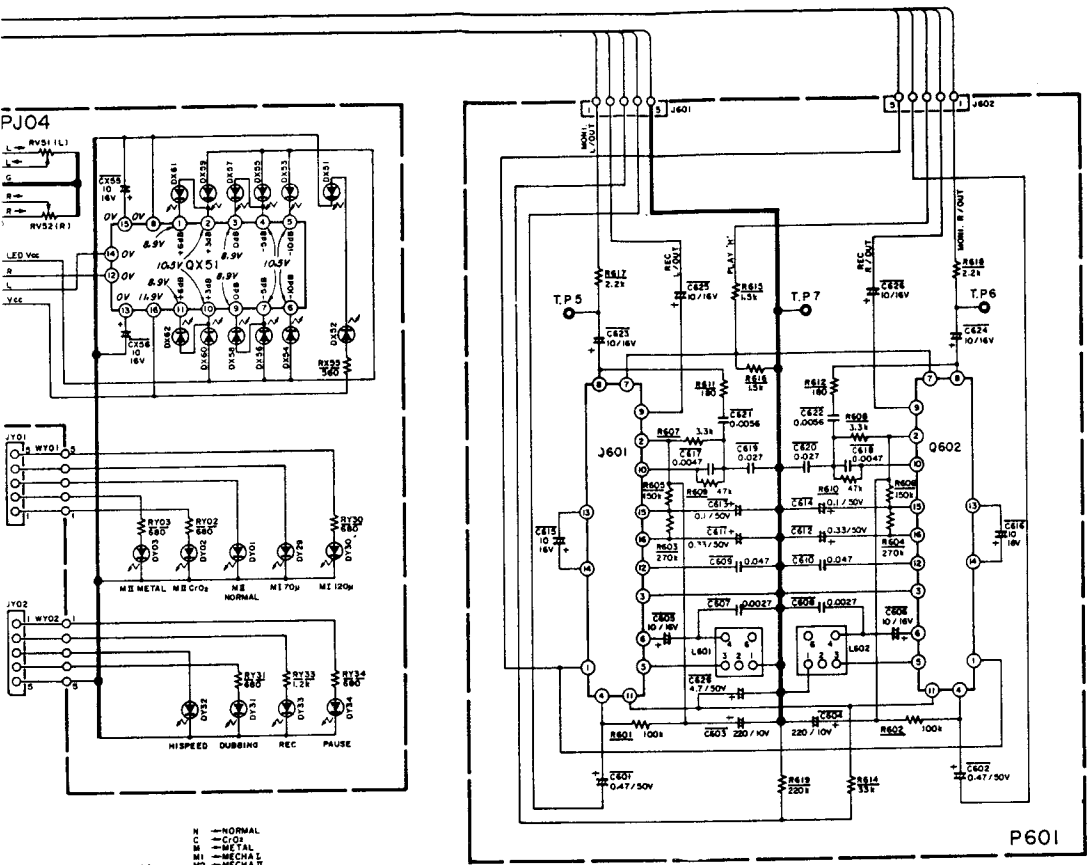
16. SCHEMATIC DIAGRAM



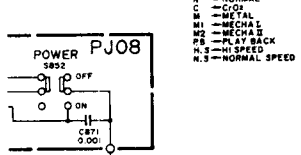

PJ01
PJ05
QJ55 1/2
QJ55 2/2
QJ51
QJ52
QJ03
QJ04
QJ05
QJ06
QJ07
QJ08
QJ02
QM21
QM22
QM20
QM28
QM27
QM10
QM12
QM19
QM09
QM08
QM11
QM26
QM05
QM04
QM07
QM25
QY53
QY52
QY51
QS51
QS52
QS53
QS54
QK06
QK07 1/2
QK07 2/2
QK05
QK04
QK03
QT01
QT02
QT03
QT04
QT07
Q651
Q652
QL51
AUTO TAPE SELECTOR
REC SW.
MOTOR SW.
PAUSE SW.
FF/REW SW.
PLAY SW.
120μ"H" SW.
MECHA II (REC/PB)
M2
MUTING
PAUSE REMOTE
DOLBY
NORMAL
CrO2
METAL
MECHA I
MECHA II
PLAY BACK
HIGH SPEED
NORMAL SPEED

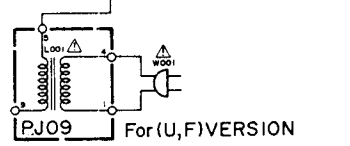

PJ04
QX51
PJ08
POWER
PJ09
For (U,F) VERSION
For (E) VERSION
For (A,N,T) VERSION
AC INLET
PJ10
REC SW.
MOTOR SW.
PLAY SW.
FF/REW SW.
120μ"H" SW.
MECHA I (PB)
QK07 1/2
QK07 2/2
QK03
QK04
QT01
QT02
QT03
QT04
QT05
QT06
QT07
QT09
QT10
QG01
QG02
QM01
QM02
QM03
QM04
QM05
QM06
QM07
QM08
QM09
QM10
QM12
QM13
QM14
QM15
QM17
QM18
QM19
QM24
QM25
QM27
QM28
QM29
Q851
Q852
DOLBY
REC MUTE
LINE MUTE
PAUSE REMOTE
MECHA STOP
N-SPEED+CONT "H"
REC "H"
NORMAL
CrO2
METAL
MECHA I
MECHA II
PLAY BACK
HI SPEED
NORMAL SPEED
Q651, Q652, Q6
QG02, QM02, QM
QM06~ QM09, Q
QM13~ QM15, Q
QM18, QM20~ Q
QM24~ QM27, Q
QT06, QT07, QT0
QJ51, QJ52, QJ0
QK03~QK06, Q
HT30001000
NPN TRANSISTO
QE01, QE02
HT32784U0
2SC2784 (U)
QX51
HC10006320
IR2E27A
QM01, QM10
HT205072A0
2SB507 (D, E)
QM12
HC10052050
TD62504P
Q601, Q602
HC10058050
TA7629P
QM04, QM05, QM
QT05, QS51~ Q
HT10001000
PNP TRANSISTO
QL01
HT404711K0
2SD471 (K)
QL02
HT403131E0
2SD313 (E)
QJ55, QK07
HC10003090
NJM4558D
QJ01
HC10109050
TA7405P
Q851, Q852
HC38512090
78M12
QS54
HC10095050
TD62554S

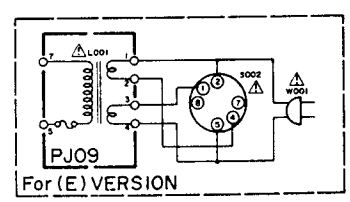
Model SD155

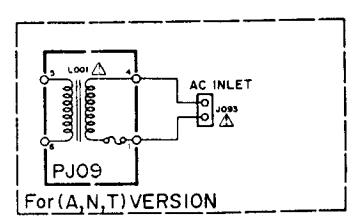


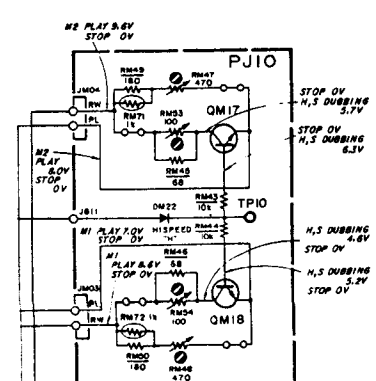
N →NORMAL
C →CrO2
M →METAL
M1 →MECHA I
M2 →MECHA II
PB →PLAY BACK
H.S →HI SPEED
N.S →NORMAL SPEED











Q651, Q652, Q601
Q602, QM02, QM03
QM06～QM09, QM11
QM13～QM15, QM17
QM18, QM20～QM22
QM24～QM27, QL51
QT06, QT07, QT09, QT10
QJ51, QJ52, QJ03～QJ08
QK03～QK06, QY51～QY53
HT30001000 QT01～QT04
NPN TRANSISTOR

QE01, QE02
HT32784IU0
2SC2784 (U)

QX51
HC10006320
IR2E27A

QM01, QM10
HT2050720
2SB507 (D, E)

QM12
HC10052050
TD62504P

Q601, Q602
HC10058050
TA7629P

QM04, QM05, QM19, QM28
QT05, QS51～QS53
HT10001000
PNP TRANSISTOR

QL01
HT40471IK0
2SD471 (K)

QL02
HT40313IE0
2SD313 (E)

QJ55, QK07
HC10003090
NJM4558D

QJ01
HC10109050
TA7405P

Q851, Q852
HC38512090
78M12

QS54
HC10095050
TD62554S

DM01～DM03, DM05～DM17
DM20～DM26, DT02～DT07
DJ01～DJ03, DS53, DS54
HD20015210
ISS133

DT01, DS51, DS52
HD10004020
Ge DIODE

DM18, DM19
HD20016210
ISR35-200

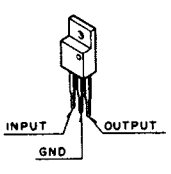
DX59～DX62
HI10062020
LN217RPH (RED)

DX51～DX58
HI10063020
LN317GPH (GRN)

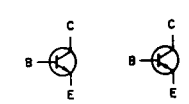
DY01～DY03
DY29～DY32, DY34
HI10038320
GL-9PG24 (GRN)

DY33
HI10032320
GL-9PR24 (RED)

D801
HD20027080

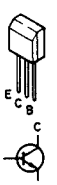


NJM78M12

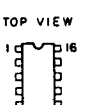


NPN TRANSISTOR

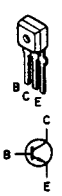
PNP TRANSISTOR



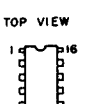
2SD471 (K)



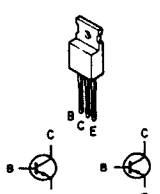
TD62504P



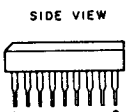
2SC2784 (U)



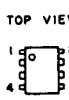
TA7629P



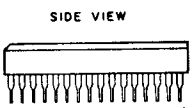
2SD313 (E) 2SB507 (D or E)



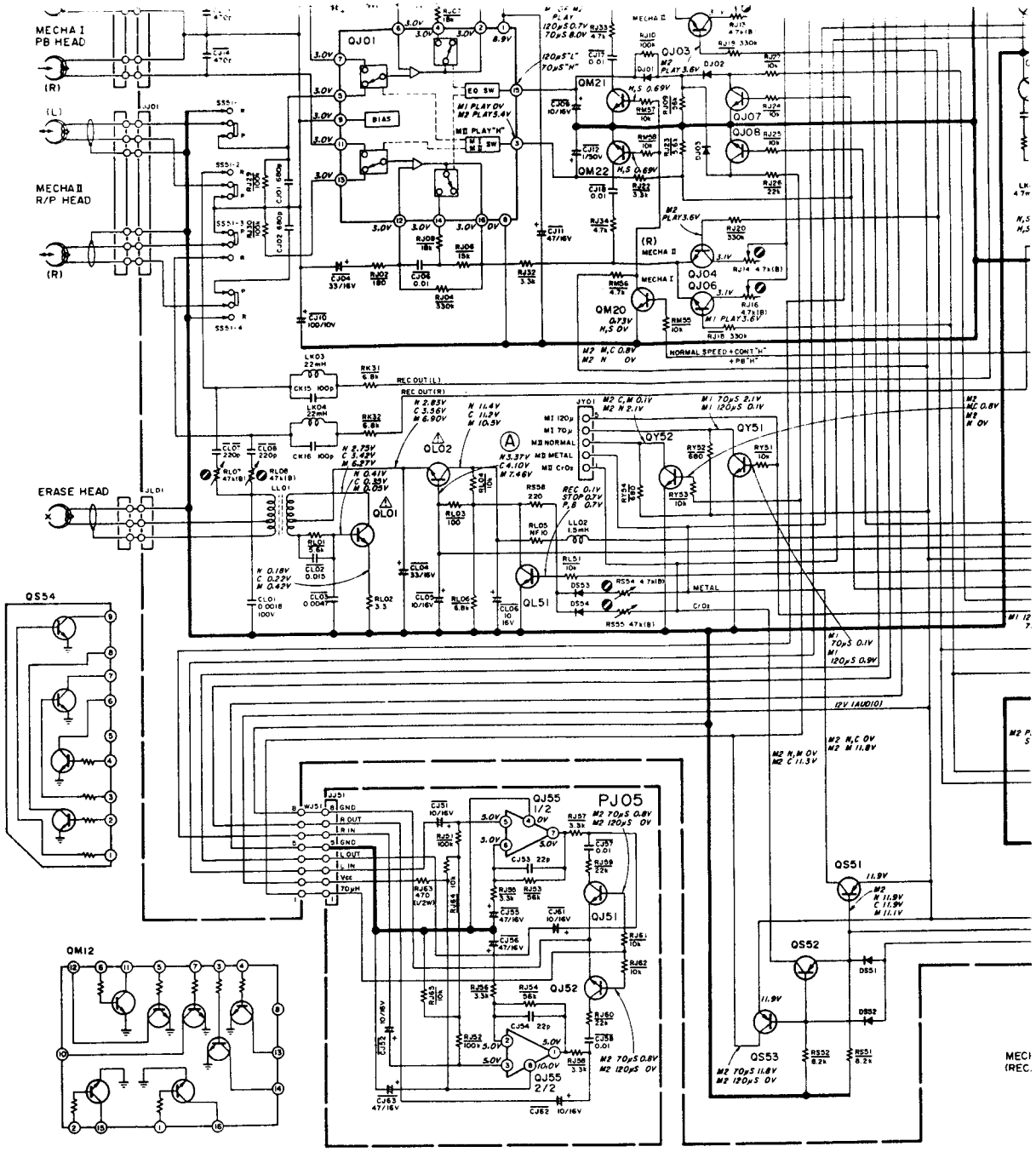
TD62554S



NJM4558D



TA7405P



L601	LS10440010	M.P.X. COIL	SS51	SS09020180	SLIDE SWITCH REC/PLAY
L602	LS10440010	M.P.X. COIL	RS54	RA04720600	TRIMMING 4.7KΩ
S601	SP02010630	PUSH SWITCH DOLBY ON/OFF	RS55	RA04730600	TRIMMING 47KΩ
			RV51	RX05030240	VARIABLE 50KΩ REC LEVEL
RM47	RA01010600	TRIMMING 100Ω	RV52	RX05030240	VARIABLE 50KΩ REC LEVEL
RM48	RA01010600	TRIMMING 100Ω			
RM53	RA01010600	TRIMMING 100Ω	024B	260T052010	COUNTER
RM54	RA01010600	TRIMMING 100Ω	032F	316Y264030	BELT COUNTER
SM01	SP06010140	PUSH SWITCH SYNCHRO START			
SM02	SP02010630	PUSH SWITCH SPEED/DUBBING	H071	LH42821050	HEAD REC/PLAY
LL01	TC10140300	OSC TRANSF. 105kHz	H072	LH39000030	HEAD ERASE
RL07	RA04730600	TRIMMING 47KΩ	M071	MM11205100	D.C. MOTOR
RL08	RA04730600	TRIMMING 47KΩ	S071	SM01011190	MINI SWITCH MOTOR
RJ13	RA04720600	TRIMMING 4.7KΩ	S072	SM01011160	MINI SWITCH FF/REW
RJ14	RA04720600	TRIMMING 4.7KΩ	S073	SM01011190	MINI SWITCH PLAY MUTE
RJ15	RA04720600	TRIMMING 4.7KΩ	S075	SM01011300	MINI SWITCH SELECTOR
RJ16	RA04720600	TRIMMING 4.7KΩ			
L001	TS14820180	POWER TRANSF. [N, A]	055M	252T354110	LEVER PINCH ROLLER
L001	TS14820190	POWER TRANSF. [E, P]	106M	161T117210	SPINDLE TAKE UP
L001	TS14820170	POWER TRANSF. [U]	110M	161T117200	SPINDLE SUPPLY
S852	SP02010960	PUSH SWITCH POWER	156M	252T264110	BELT AUTO STOP
RK01	RA04730600	TRIMMING 47KΩ	230M	185T264200	BELT MAIN
RK02	RA04730600	TRIMMING 47KΩ	231M	185T264210	BELT F/R

NOTE ON SAFETY :
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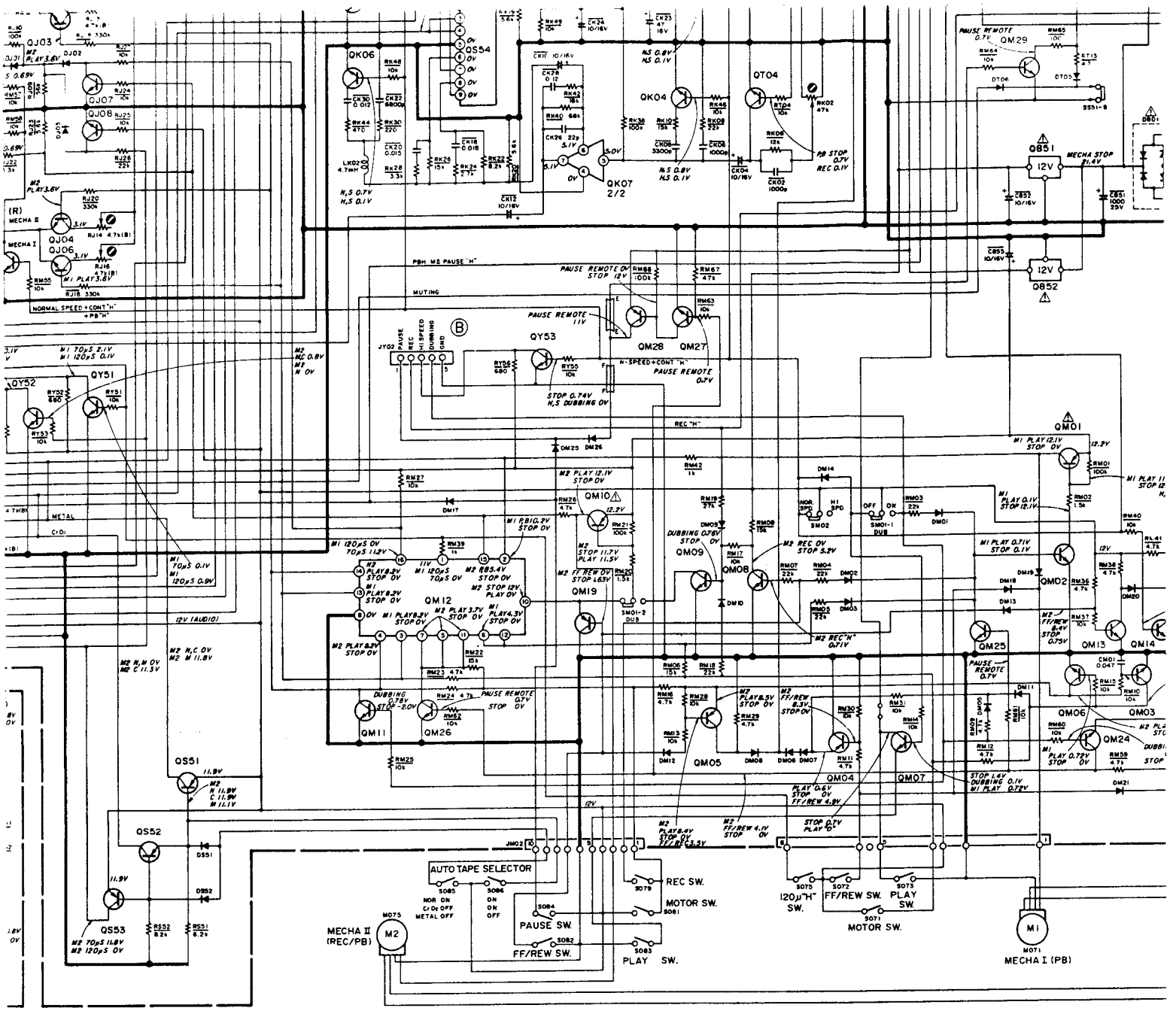


SS09020180	SLIDE SWITCH REC/PLAY	
RA04720600	TRIMMING 4.7KΩ	
RA04730600	TRIMMING 47KΩ	
RX05030240	VARIABLE 50KΩ REC LEVEL (L)	
RX05030240	VARIABLE 50KΩ REC LEVEL (R)	
260T052010	COUNTER	
316Y264030	BELT COUNTER	
LH42821050	HEAD REC/PLAY	
LH39000030	HEAD ERASE	
MM11205100	D.C. MOTOR	
SM01011190	MINI SWITCH MOTOR	
SM01011160	MINI SWITCH FF/REW	
SM01011190	MINI SWITCH PLAY MUTE	
SM01011300	MINI SWITCH SELECTOR	
252T354110	LEVER PINCH ROLLER	
161T117210	SPINDLE TAKE UP	
161T117200	SPINDLE SUPPLY	
252T264110	BELT AUTO STOP	
185T264200	BELT MAIN	
185T264210	BELT F/R	

H075	LH42821050	HEAD REC/PLAY
H076	LH31000580	HEAD ERASE
M075	MM11205100	D.C. MOTOR
S079	SM01011020	MINI SWITCH REC
S081	SM01011190	MINI SWITCH MOTOR
S082	SM01011160	MINI SWITCH FF/REW
S083	SM01011190	MINI SWITCH PLAY MUTE
S084	SM01011190	MINI SWITCH PAUSE
S085	SM01011300	MINI SWITCH SELECTOR CrO_2
S086	SM01011300	MINI SWITCH SELECTOR METAL
555M	252T354110	LEVER PINCH ARM ASS'Y.
606M	161T117210	SPINDLE REEL TAKE UP
610M	161T117200	SPINDLE REEL SUPPLY
656M	252T264110	BELT AUTO STOP
730M	185T264200	BELT MAIN
731M	185T264210	BELT F/R

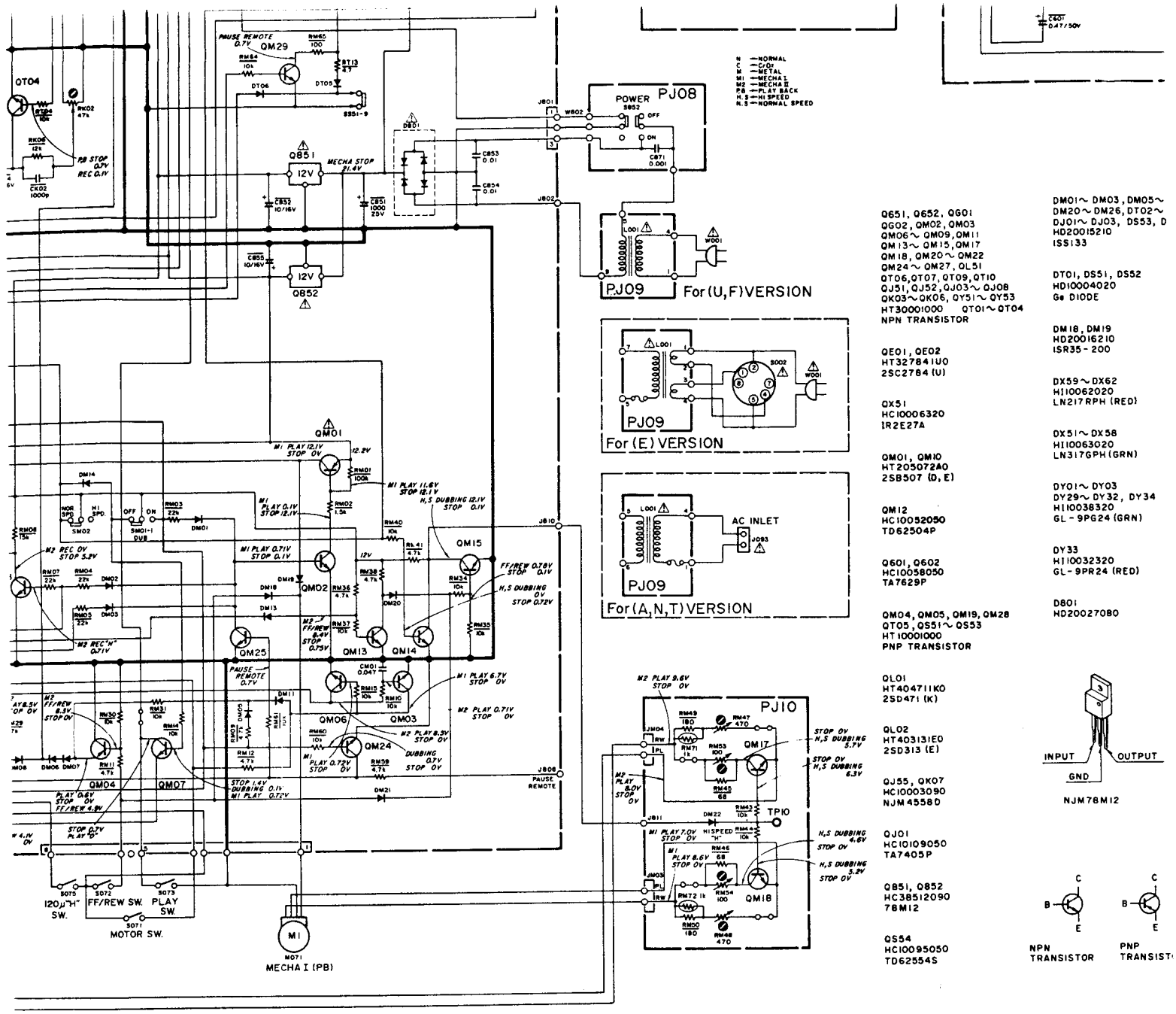
"SERVICE INFORMAT
ANY MISADJUSTMEN
REPAIR BY ANY MA

RESISTOR
R*** (1) GD05 - - - 1
R*** (2) GD05 - - - 1

C*** : CERAMIC C
(1) DD1 - - - - 3

C*** : CERAMIC C
(1) DK16 - - - 3

Components and wiring are subject to change for modification without notice.



Q651, Q652, QG01
QG02, QM02, QM03
QM06～QM09, QM11
QM13～QM15, QM17
QM18, QM20～QM22
QM24～QM27, QL51
QT06, QT07, QT09, QT10
QJ51, QJ52, QJ03～QJ08
QK03～QK06, QY51～QY53
HT30001000 QT01～QT04
NPN TRANSISTOR

QE01, QE02
HT32784IU0
2SC2784 (U)

QX51
HC10006320
1R2E27A

QM01, QM10
HT205072A0
2SB507 (D, E)

QM12
HC10052050
TD62504P

Q601, Q602
HC10058050
TA7629P

QM04, QM05, QM19, QM28
QT05, QS51～QS53
HT10001000
PNP TRANSISTOR

QL01
HT404711K0
2SD471 (K)

QL02
HT403131E0
2SD313 (E)

QJ55, QK07
HC10003090
NJM4558D

QJ01
HC10109050
TA7405P

Q851, Q852
HC38512090
78M12

QS54
HC10095050
TD62554S

DM01～DM03, DM05～
DM20～DM26, DT02～
DJ01～DJ03, DS53, D
HD20015210
ISS133

DT01, DS51, DS52
HD10004020
Ge DIODE

DM18, DM19
HD20016210
ISR35-200

DX59～DX62
HI10062020
LN217RPH (RED)

DX51～DX58
HI10063020
LN317GPH (GRN)

DY01～DY03
DY29～DY32, DY34
HI10038320
GL-9PG24 (GRN)

DY33
HI10032320
GL-9PR24 (RED)

D801
HD20027080

TOR
REW
Y MUTE
SE
ECTOR CrO_2
ECTOR METAL

M ASS'Y.
KE UP
PPLY

"SERVICE INFORMATION IS FOR USE BY QUALIFIED RERSONNEL ONLY – ANY MISADJUSTMENT OR MISALIGNMENT MAY BE TREATED AS A NON-WARRANTY REPAIR BY ANY MARANTZ SERVICE CENTRE – "

Kind of Common Parts

RESISTOR

R*** (1) GD05 - - - 140, Carbon film fixed resistor, ±5% 1/4W
R*** (2) GD05 - - - 160, Carbon film fixed resistor, ±5% 1/6W

C* : CERAMIC CAP.**

(1) DD1 - - - - 370, Ceramic condenser, disc type (titan condenser) Temp. coeff. P350 ~ N1000 50V

C* : CERAMIC CAP.**

(1) DK16 - - - 300, High dielectric constant ceramic condenser, disc type (titan variable) Temp. chara. 2B4 50V

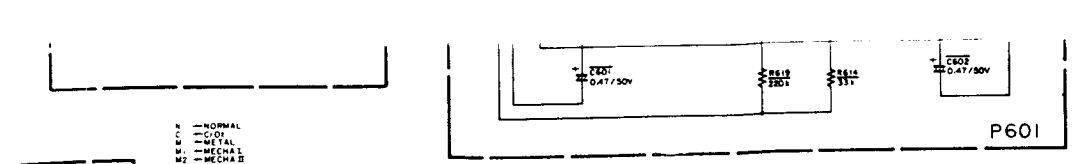
C* : ELECTROLY CAP. (#) /**

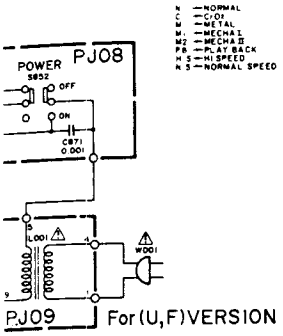
(1) EA - - - - - - 10, Electrolyti one-way le

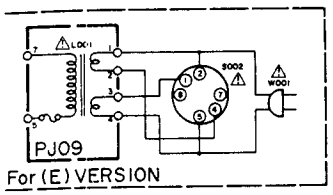
(2) DF15 - - - 350, Plastic film one-way ty

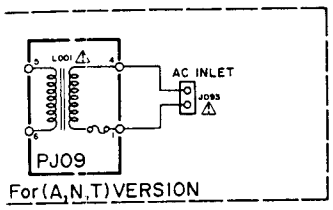
* In case of ordering the common pa parts number of 10 figures by the COMMON PARTS CODES"

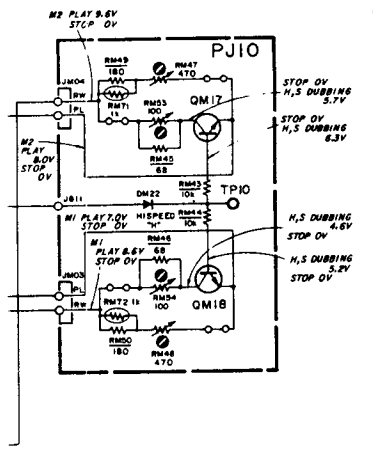
e subject to change for modification without notice.











Q651, Q652, Q601
QG02, QM02, QM03
QM06～QM09, QM11
QM13～QM15, QM17
QM18, QM20～QM22
QM24～QM27, QL51
QT06, QT07, QT09, QT10
QJ51, QJ52, QJ03～QJ08
QK03～QK06, QY51～QY53
HT30001000 QT01～QT04
NPN TRANSISTOR

QE01, QE02
HT32784100
2SC2784 (U)

QX51
HC10006320
1R2E27A

QM01, QM10
HT20507200
2SB507 (D, E)

QM12
HC10052050
TD62504P

Q601, Q602
HC10058050
TA7629P

QM04, QM05, QM19, QM28
QT05, QS51～QS53
HT10001000
PNP TRANSISTOR

QL01
HT40471100
2SD471 (K)

QL02
HT40313100
2SD313 (E)

QJ55, QK07
HC10003090
NJM4558D

QJ01
HC10109050
TA7405P

Q851, Q852
HC36512090
78M12

QS54
HC10095050
TD62554S

DM01～DM03, DM05～DM17
DM20～DM26, DT02～DT07
DJ01～DJ03, DS53, DS54
HD20015210
1SS133

DT01, DS51, DS52
HD10004020
Ge DIODE

DM18, DM19
HD20016210
1SR35-200

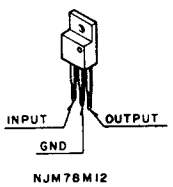
DX59～DX62
HI10062020
LN217RPH (RED)

DX51～DX58
HI10063020
LN317GPH (GRN)

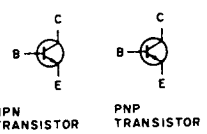
DY01～DY03
DY29～DY32, DY34
HI10038320
GL-9PG24 (GRN)

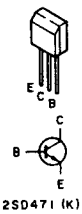
DY33
HI10032320
GL-9PR24 (RED)

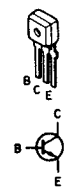
D801
HD20027080

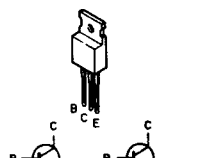


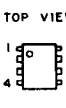
NJM78M12

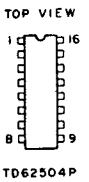


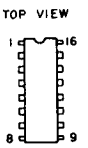


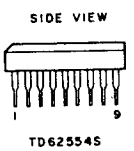


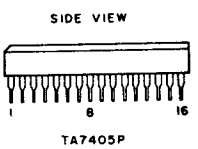












QUALIFIED RERSONNEL ONLY –
NT MAY BE TREATED AS A NON-WARRANTY
NTRE --"

s

resistor, ±5% 1/4W
resistor, ±5% 1/6W

:r,
)ndenser)
) ~ N1000 50V

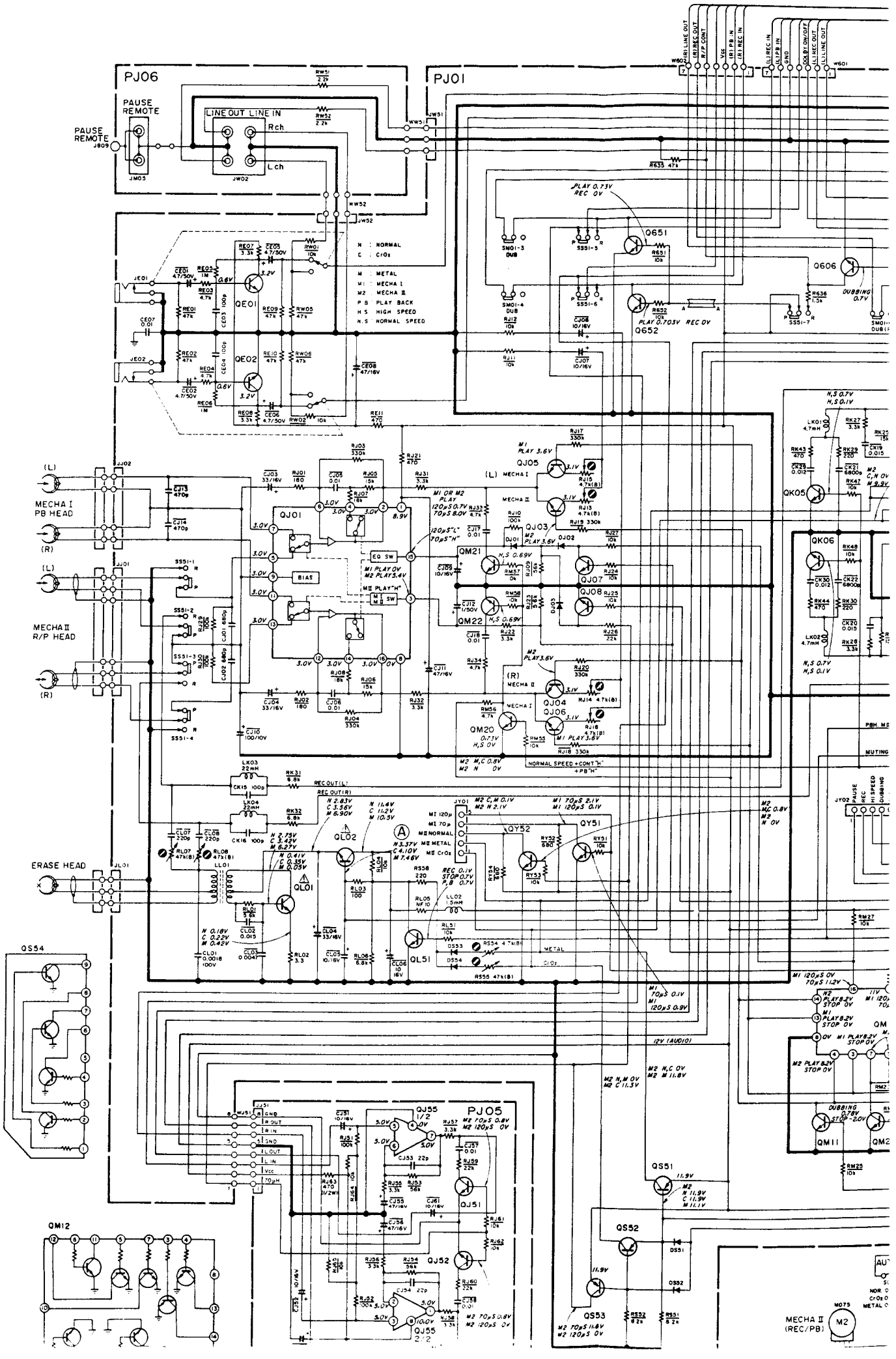
nstant ceramic condenser,
ıriable)
50V

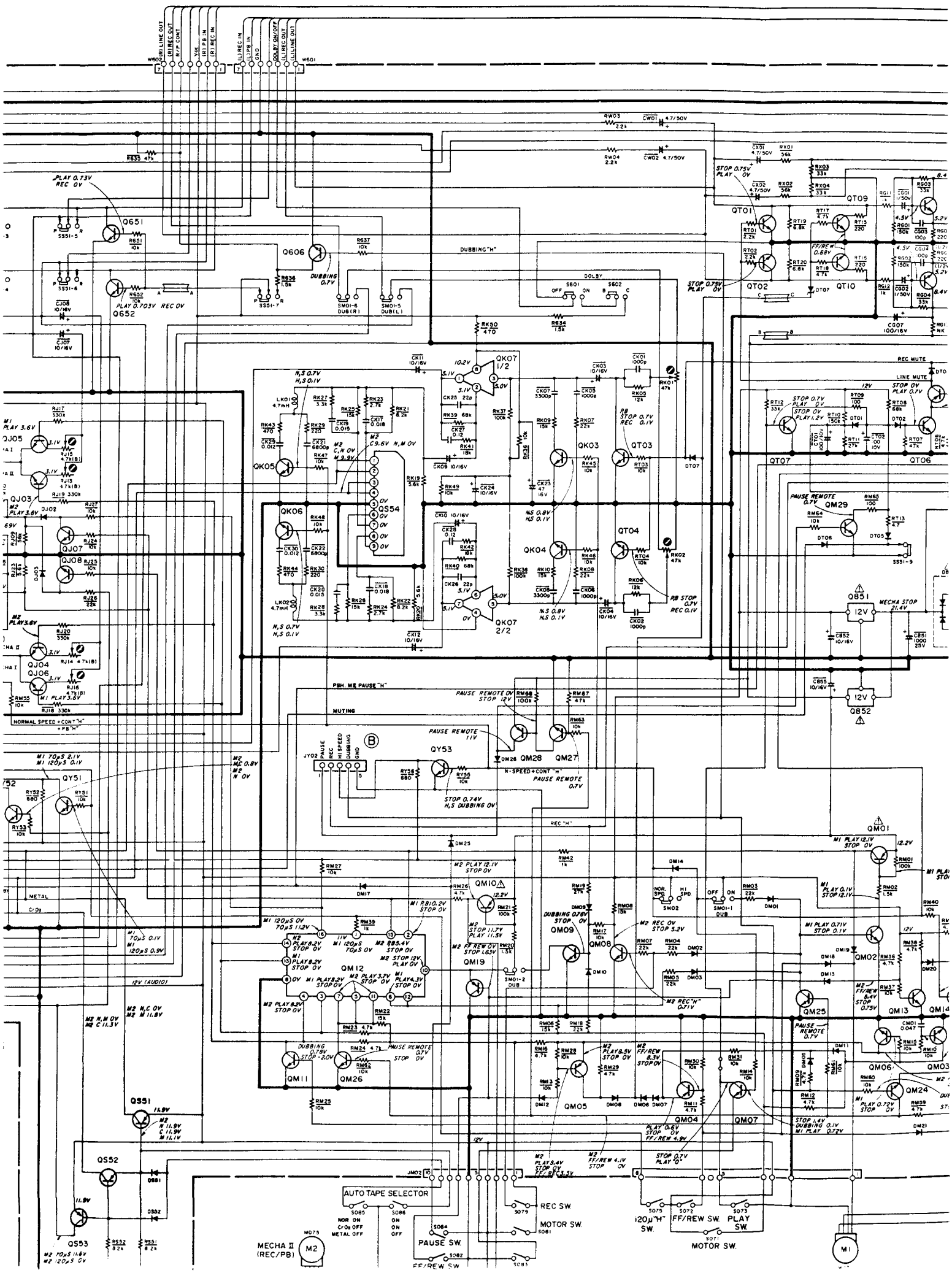
C*** : **ELECTROLY CAP. (⧧) / FILM CAP. (⥤)**

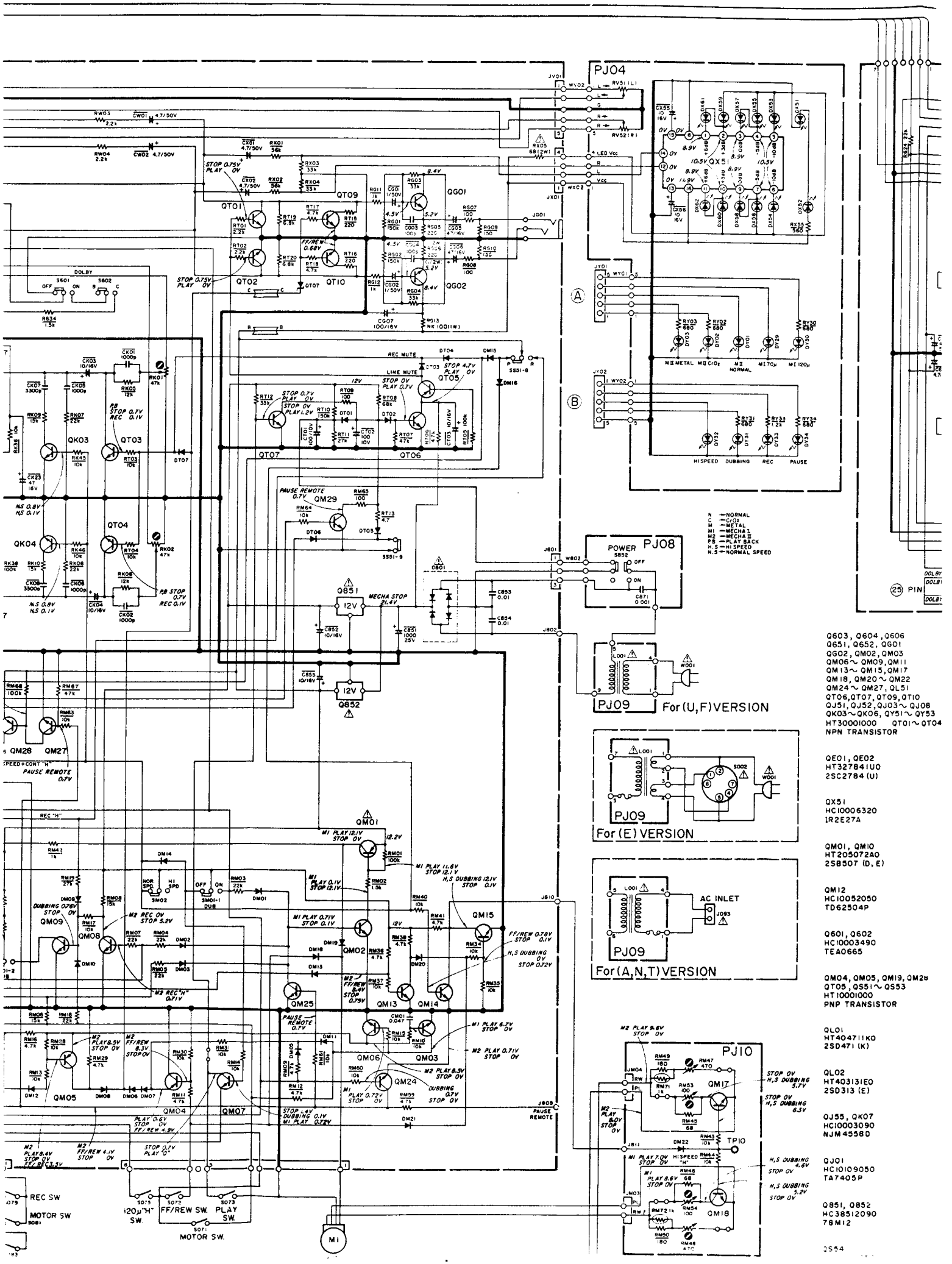
(1) EA - - - - - - 10, Electrolytic condenser, one-way lead type, tolerance ±20%

(2) DF15 - - - 350, Plastic film condenser, one-way type, Mylar, ±5% 50V

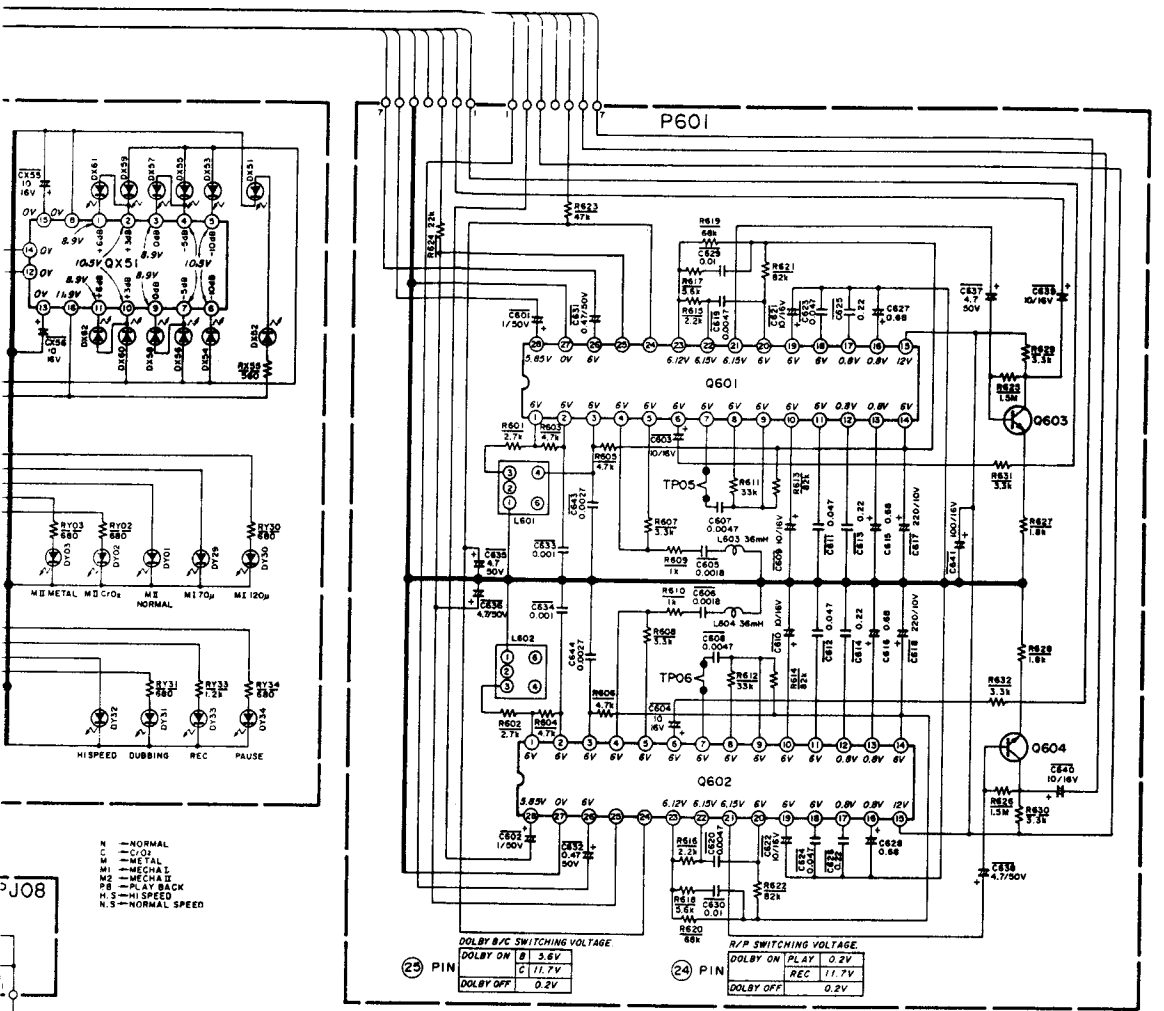
*In case of ordering the common parts, please establish the correct parts number of 10 figures by the procedure "ASSIGNMENT OF COMMON PARTS CODES"


PJ06
PJ01
PAUSE REMOTE
LINE OUT LINE IN
Rch
Lch
MECHA I PB HEAD
MECHA II R/P HEAD
ERASE HEAD
QJ01
QJ02
QJ03
QJ04
QJ05
QJ06
QJ07
QJ08
QE01
QE02
Q651
Q652
Q606
QK05
QK06
QL01
QL02
QL51
QM20
QM21
QM22
QS51
QS52
QS53
QS54
QJ51
QJ52
QJ55
PJ05
QM11
QM12
QY51
QY52
MECHA II (REC/PB)
M2

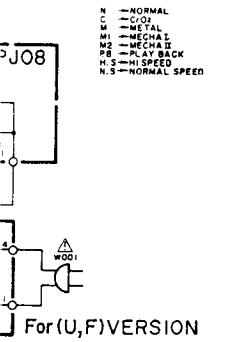

(R) LINE OUT
(R) REC OUT
R/P CONT
Vcc
(R) PB IN
(R) REC IN
(L) REC IN
(L) PB IN
GND
DOLBY ON/OFF
(L) REC OUT
(L) LINE OUT
W602
W601
DUBBING "H"
DOLBY
S601
S602
OFF
ON
SM01-6 DUB(R)
SM01-5 DUB(L)
SM01-7 DUB
SS51-5
SS51-6
SS51-7
Q651
Q652
Q606
PLAY 0.73V REC 0V
PLAY 0.703V REC 0V
DUBBING 0.7V
QK07 1/2
QK07 2/2
QK05
QK06
QK04
QK03
QS54
QT01
QT02
QT03
QT04
QT06
QT07
QT09
QT10
QJ03
QJ04
QJ05
QJ06
QJ07
QJ08
QY51
QY53
QM01
QM02
QM04
QM05
QM06
QM07
QM08
QM09
QM10
QM11
QM12
QM13
QM14
QM19
QM24
QM25
QM26
QM27
QM28
QM29
Q851
Q852
QS51
QS52
QS53
REC MUTE
LINE MUTE
PAUSE REMOTE
MECHA STOP
MUTING
NORMAL SPEED + CONT "H" + PB "H"
PBH, MB PAUSE "H"
N-SPEED + CONT "H"
REC "H"
METAL
CrO2
12V (AUDIO)
AUTO TAPE SELECTOR
SD85
SD86
NOR ON
CrO2 OFF
METAL OFF
ON
ON
OFF
REC SW.
SD79
MOTOR SW.
SD81
PAUSE SW.
SD82
FF/REW SW.
SD83
120μ "H" SW.
SD75
FF/REW SW.
SD72
PLAY SW.
SD73
MOTOR SW.
SD71
MECHA II (REC/PB)
MD75
M2
M1

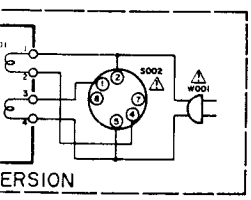

PJ04
PJ08
POWER
PJ09
For (U,F) VERSION
For (E) VERSION
For (A,N,T) VERSION
PJ10
AC INLET
REC SW
MOTOR SW
120μ"H" SW.
FF/REW SW.
PLAY SW.
MOTOR SW.
N →NORMAL
C →CrO2
M →METAL
MI →MECHA I
M2 →MECHA II
PB →PLAY BACK
H.S →HI SPEED
N.S →NORMAL SPEED
Q603, Q604, Q606
Q651, Q652, Q601
QG02, QM02, QM03
QM06～QM09, QM11
QM13～QM15, QM17
QM18, QM20～QM22
QM24～QM27, QL51
QT06, QT07, QT09, QT10
QJ51, QJ52, QJ03～QJ08
QK03～QK06, QY51～QY53
HT30001000 QT01～QT04
NPN TRANSISTOR
QE01, QE02
HT327841U0
2SC2784 (U)
QX51
HC10006320
IR2E27A
QM01, QM10
HT205072A0
2SB507 (D, E)
QM12
HC10052050
TD62504P
Q601, Q602
HC10003490
TEA0665
QM04, QM05, QM19, QM26
QT05, QS51～QS53
HT10001000
PNP TRANSISTOR
QL01
HT404711K0
2SD471 (K)
QL02
HT403131E0
2SD313 (E)
QJ55, QK07
HC10003090
NJM4558D
QJ01
HC10109050
TA7405P
Q851, Q852
HC38512090
78M12
25 PIN

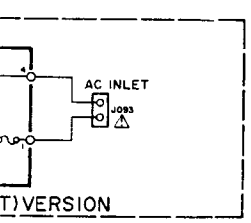
Model SD255

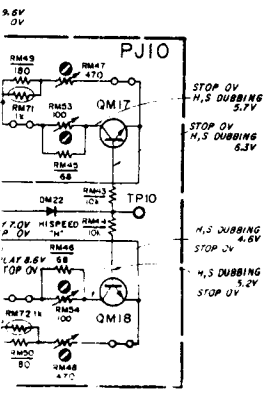


N →NORMAL
C →CrO2
M →METAL
M1 →MECHA I
M2 →MECHA II
PB →PLAY BACK
H.S →HI SPEED
N.S →NORMAL SPEED









Q603, Q604, Q606
Q651, Q652, Q601
QQ02, QM02, QM03
QM06～QM09, QM11
QM13～QM15, QM17
QM18, QM20～QM22
QM24～QM27, QL51
QT06, QT07, QT09, QT10
QJ51, QJ52, QJ03～QJ08
QK03～QK06, QY51～QY53
HT30001000 QT01～QT04
NPN TRANSISTOR

QE01, QE02
HT32784IU0
2SC2784 (U)

QX51
HC10006320
IR2E27A

QM01, QM10
HT205072A0
2SB507 (D, E)

QM12
HC10052050
TD62504P

Q601, Q602
HC10003490
TEA0665

QM04, QM05, QM19, QM2b
QT05, QS51～QS53
HT10001000
PNP TRANSISTOR

QL01
HT404711K0
2SD471 (K)

QL02
HT403131E0
2SD313 (E)

QJ55, QK07
HC10003090
NJM4558D

QJ01
HC10109050
TA7405P

Q851, Q852
HC38512090
78M12

QS54

DM01～DM03, DM05～DM17
DM20～DM26, DT02～DT07
DJ01～DJ03, DS53, DS54
HD20015210
ISS133

DT01, DS51, DS52
HD10004020
Ge DIODE

DM18, DM19
HD20016210
ISR35-200

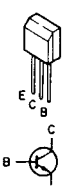
DX59～DX62
HI10062020
LN217RPH (RED)

DX51～DX58
HI10063020
LN317GPH (GRN)

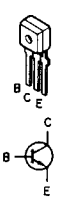
DY01～DY03
DY29～DY32, DY34
HI10038320
GL-9PG24 (GRN)

DY33
HI10032320
GL-9PR24 (RED)

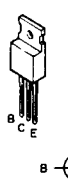
D801
HD20027080



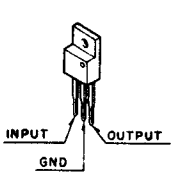
2SD471 (K)



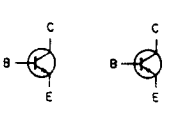
2SC2784 (U)



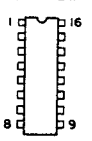
2SD313 (E) 2SB507 (D or E)



NJM78M12

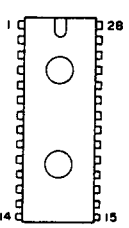


TOP VIEW



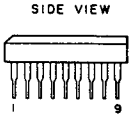
TD62504P

TOP VIEW



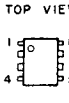
TEA0665

SIDE VIEW



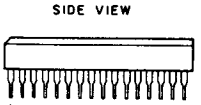
TD62554S

TOP VIEW

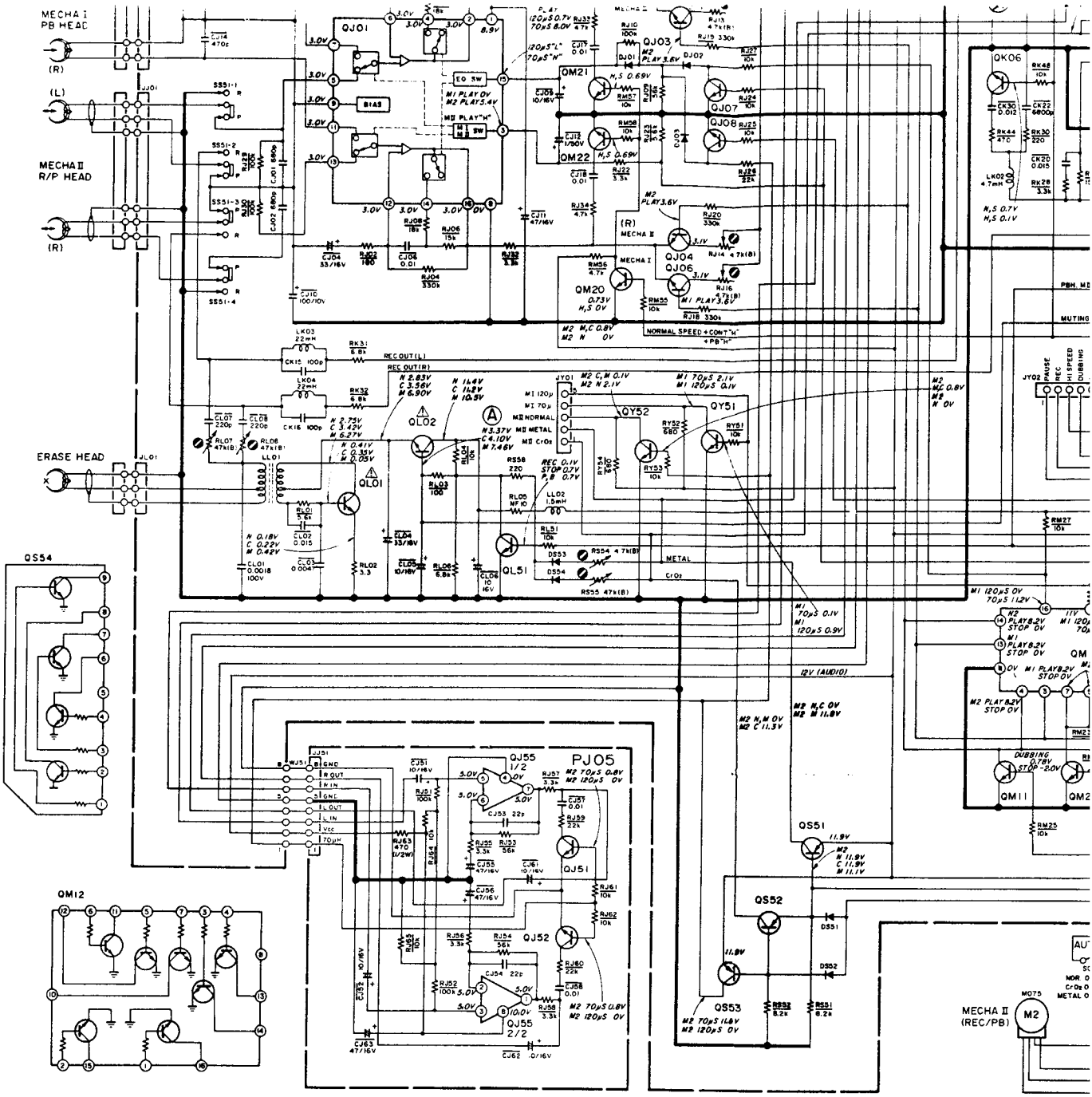


NJM4558D

SIDE VIEW



TA7405P

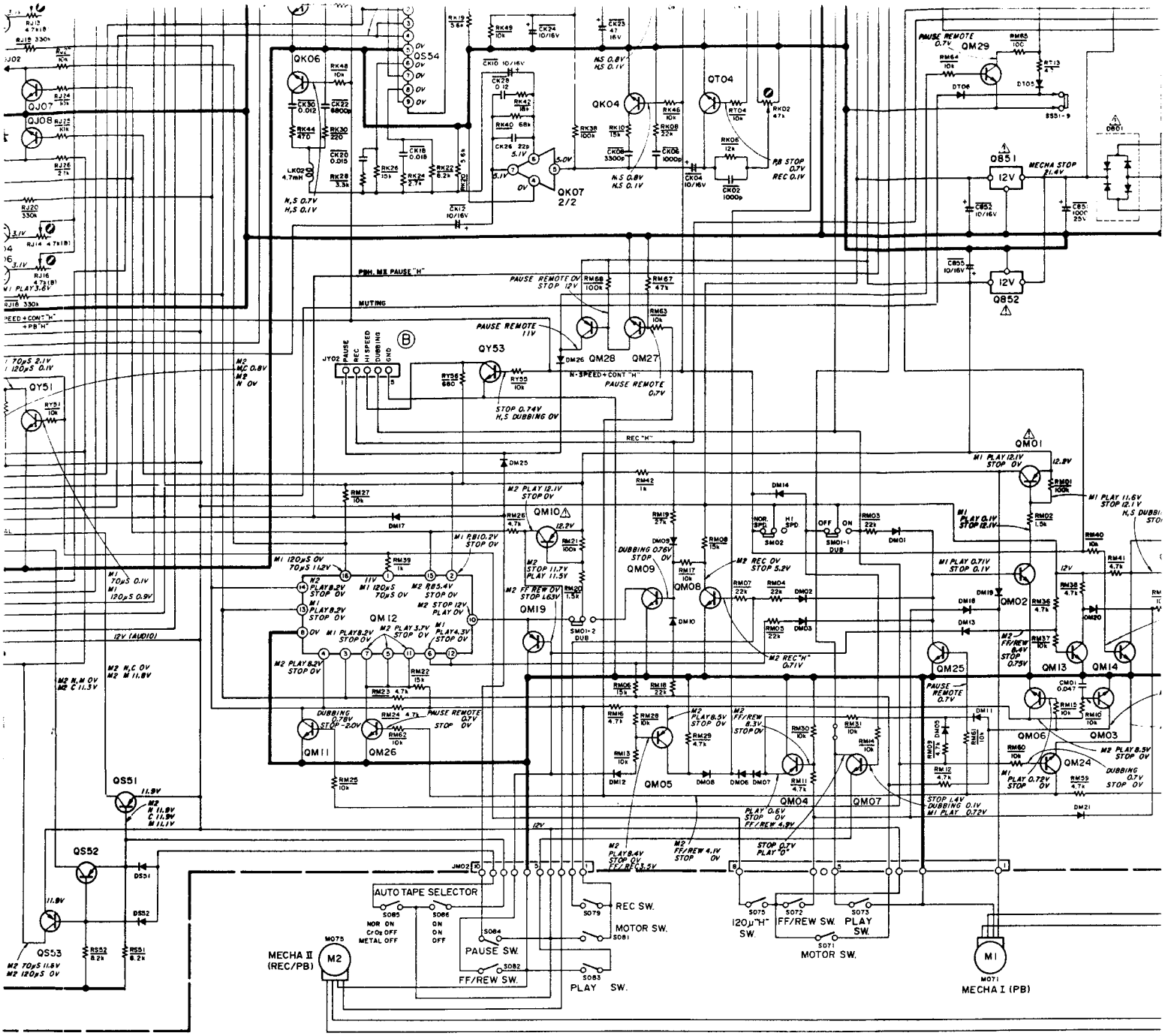


L601	LS10440010	M.P.X. COIL
L602	LS10440010	M.P.X. COIL
S601	SP02010630	PUSH SWITCH DOLBY ON/OFF
S602	SP02010630	PUSH SWITCH DOLBY B/C
RM47	RA01010600	TRIMMING 100Ω
RM48	RA01010600	TRIMMING 100Ω
RM53	RA01010600	TRIMMING 100Ω
RM54	RA01010600	TRIMMING 100Ω
SM01	SP06010140	PUSH SWITCH SYNCHRO START
SM02	SP02010630	PUSH SWITCH SPEED/DUBBING
LL01	TC10140300	OSC TRANSF. 105kHz
RL07	RA04730600	TRIMMING 47KΩ
RL08	RA04730600	TRIMMING 47KΩ
RJ13	RA04720600	TRIMMING 4.7KΩ
RJ14	RA04720600	TRIMMING 4.7KΩ
RJ15	RA04720600	TRIMMING 4.7KΩ
RJ16	RA04720600	TRIMMING 4.7KΩ
L001	TS14820180	POWER TRANSF. [N, A]
L001	TS14820190	POWER TRANSF. [E, P]
L001	TS14820170	POWER TRANSF. [U]

S852	SP02010960	PUSH SWITCH POWER
RK01	RA04730600	TRIMMING 47KΩ
RK02	RA04730600	TRIMMING 47KΩ
SS51	SS09020180	SLIDE SWITCH REC/PLAY
RS54	RA04720600	TRIMMING 4.7KΩ
RS55	RA04730600	TRIMMING 47KΩ
RV51	RX05030240	VARIABLE 50KΩ REC LEVEL (L)
RV52	RX05030240	VARIABLE 50KΩ REC LEVEL (R)
024B	260T052010	COUNTER
032F	316Y264030	BELT COUNTER
H071	LH42821050	HEAD REC/PLAY
H072	LH39000030	HEAD ERASE
M071	MM11205100	D.C. MOTOR
S071	SM01011190	MINI SWITCH MOTOR
S072	SM01011160	MINI SWITCH FF/REW
S073	SM01011190	MINI SWITCH PLAY MUTE
S075	SM01011300	MINI SWITCH SELECTOR

NOTE ON SAFETY :

Symbol ⚠ Fire or electrical shock hazard. Only original parts should be used to replace any part marked with symbol ⚠. Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.



)10960	PUSH SWITCH POWER	
730600	TRIMMING 47KΩ	
730600	TRIMMING 47KΩ	
)20180	SLIDE SWITCH REC/PLAY	
720600	TRIMMING 4.7KΩ	
730600	TRIMMING 47KΩ	
030240	VARIABLE 50KΩ REC LEVEL (L)	
030240	VARIABLE 50KΩ REC LEVEL (R)	
)52010	COUNTER	
264030	BELT COUNTER	
821050	HEAD REC/PLAY	
000030	HEAD ERASE	
205100	D.C. MOTOR	
011190	MINI SWITCH MOTOR	
011160	MINI SWITCH FF/REW	
011190	MINI SWITCH PLAY MUTE	
011300	MINI SWITCH SELECTOR	

055M	252T354110	LEVER PINCH ROLLER
106M	161T117210	SPINDLE TAKE UP
110M	161T117200	SPINDLE SUPPLY
156M	252T264110	BELT AUTO STOP
230M	185T264200	BELT MAIN
231M	185T264210	BELT F/R
H075	LH42821050	HEAD REC/PLAY
H076	LH31000580	HEAD ERASE
M075	MM11205100	D.C. MOTOR
S079	SM01011020	MINI SWITCH REC
S081	SM01011190	MINI SWITCH MOTOR
S082	SM01011160	MINI SWITCH FF/REW
S083	SM01011190	MINI SWITCH PLAY MUTE
S084	SM01011190	MINI SWITCH PAUSE
S085	SM01011300	MINI SWITCH SELECTOR CrO_2
S086	SM01011300	MINI SWITCH SELECTOR METAL
555M	252T354110	LEVER PINCH ARM ASS'Y.
606M	161T117210	SPINDLE REEL TAKE UP
610M	161T117200	SPINDLE REEL SUPPLY
656M	252T264110	BELT AUTO STOP
730M	185T264200	BELT MAIN
731M	185T264210	BELT F/R

"SERVICE INFORMATIO
ANY MISADJUSTMENT
REPAIR BY ANY MARA

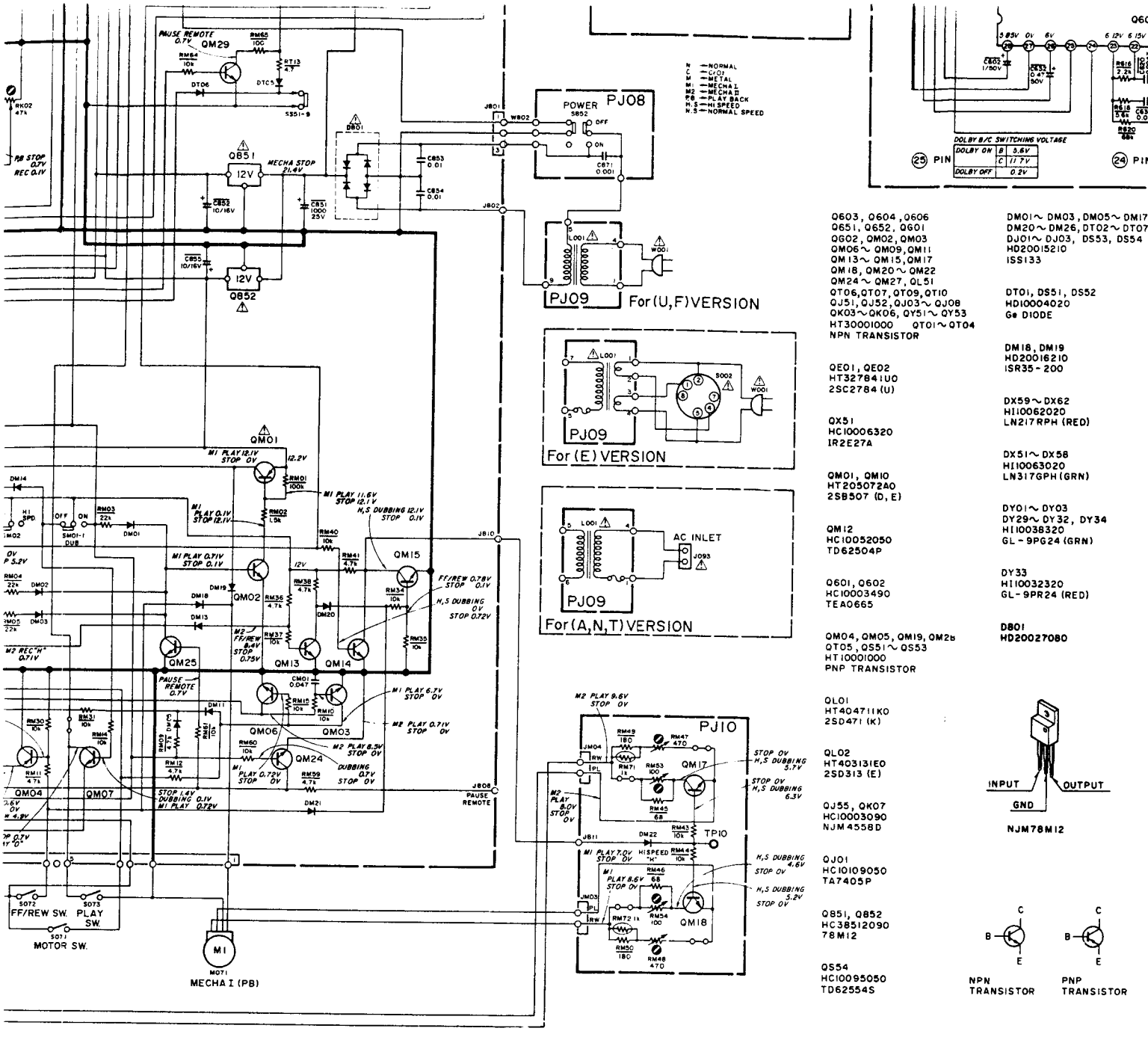
Kin

RESISTOR
R*** (1) GD05 - - - 140,
R*** (2) GD05 - - - 160,

C*** : CERAMIC CAP
(1) DD1 - - - - 370,

C*** : CERAMIC CAP
(1) DK16 - - - 300,

Components and wiring are subject to change for modification without notice.



Q603, Q604, Q606
Q651, Q652, Q601
Q602, QM02, QM03
QM06～QM09, QM11
QM13～QM15, QM17
QM18, QM20～QM22
QM24～QM27, QL51
QT06, QT07, QT09, QT10
QJ51, QJ52, QJ03～QJ08
QK03～QK06, QY51～QY53
HT30001000 QT01～QT04
NPN TRANSISTOR

QE01, QE02
HT32784U0
2SC2784 (U)

QX51
HC10006320
IR2E27A

QM01, QM10
HT20507240
2SB507 (D, E)

QM12
HC10052050
TD62504P

Q601, Q602
HC10003490
TEA0665

QM04, QM05, QM19, QM28
QT05, QS51～QS53
HT10001000
PNP TRANSISTOR

QL01
HT40471K0
2SD471 (K)

QL02
HT40313E0
2SD313 (E)

QJ55, QK07
HC10003090
NJM4558D

QJ01
HC10109050
TA7405P

Q851, Q852
HC38512090
78M12

QS54
HC10095050
TD62554S

DM01～DM03, DM05～DM17
DM20～DM26, DT02～DT07
DJ01～DJ03, DS53, DS54
HD20015210
1SS133

DT01, DS51, DS52
HD10004020
Ge DIODE

DM18, DM19
HD20016210
ISR35-200

DX59～DX62
HI10062020
LN217RPH (RED)

DX51～DX58
HI10063020
LN317GPH (GRN)

DY01～DY03
DY29～DY32, DY34
HI10038320
GL-9PG24 (GRN)

DY33
HI10032320
GL-9PR24 (RED)

D801
HD20027080

NJM78M12

"SERVICE INFORMATION IS FOR USE BY QUALIFIED RERSONNEL ONLY – ANY MISADJUSTMENT OR MISALIGNMENT MAY BE TREATED AS A NON-WARRANTY REPAIR BY ANY MARANTZ SERVICE CENTRE – "

Kind of Common Parts

RESISTOR

R*** (1) GD05 - - - 140, Carbon film fixed resistor, ±5% 1/4W
R*** (2) GD05 - - - 160, Carbon film fixed resistor, ±5% 1/6W

C*** : **CERAMIC CAP.**

(1) DD1 - - - - 370, Ceramic condenser, disc type (titan condenser) Temp. coeff. P350 ~ N1000 50V

C*** : **CERAMIC CAP.**

(1) DK16 - - - 300, High dielectric constant ceramic condenser, disc type (titan variable) Temp. chara. 2B4 50V

C*** : **ELECTROLY CAP. (≠) / FILM**

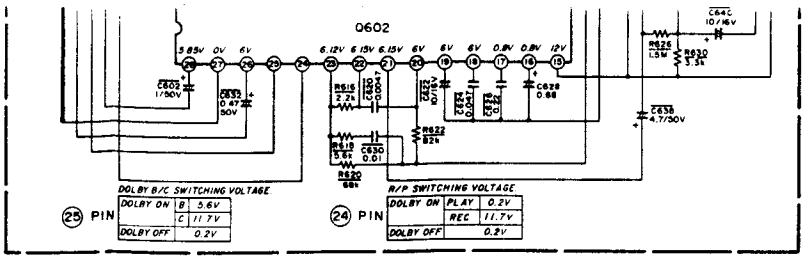
(1) EA - - - - - - 10, Electrolytic cond one-way lead type

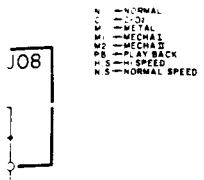
(2) DF15 - - - 350, Plastic film conde one-way type, My

* In case of ordering the common parts, ple parts number of 10 figures by the proced COMMON PARTS CODES"

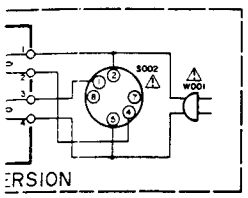
:rO$_2$
METAL

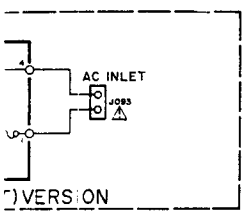
:t to change for modification without notice.





For(U,F)VERSION





)VERSION

Q603, Q604, Q606
Q651, Q652, Q601
QG02, QM02, QM03
QM06～QM09, QM11
QM13～QM15, QM17
QM18, QM20～QM22
QM24～QM27, QL51
QT06, QT07, QT09, QT10
QJ51, QJ52, QJ03～QJ08
QK03～QK06, QY51～QY53
HT30001000 QT01～QT04
NPN TRANSISTOR

QE01, QE02
HT32784UU0
2SC2784 (U)

QX51
HC10006320
IR2E27A

QM01, QM10
HT205072A0
2SB507 (D, E)

QM12
HC10052050
TD62504P

Q601, Q602
HC10003490
TEA0665

QM04, QM05, QM19, QM20
QT05, QS51～QS53
HT10001000
PNP TRANSISTOR

QL01
HT40471IK0
2SD471 (K)

QL02
HT40313IE0
2SD313 (E)

QJ55, QK07
HC10003090
NJM4558D

QJ01
HC10109050
TA7405P

Q851, Q852
HC38512090
78M12

QS54
HC10095050
TD62554S

DM01～DM03, DM05～DM17
DM20～DM26, DT02～DT07
DJ01～DJ03, DS53, DS54
HD20015210
1SS133

DT01, DS51, DS52
HD10004020
Ge DIODE

DM18, DM19
HD20016210
ISR35-200

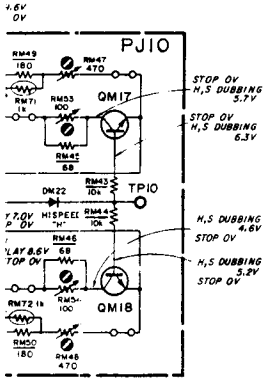
DX59～DX62
HI10062020
LN217RPH (RED)

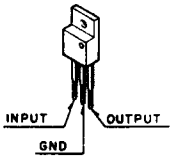
DX51～DX58
HI10063020
LN317GPH (GRN)

DY01～DY03
DY29～DY32, DY34
HI10038320
GL-9PG24 (GRN)

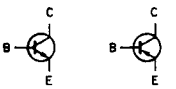
DY33
HI10032320
GL-9PR24 (RED)

D801
HD20027080

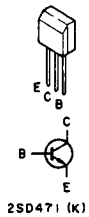




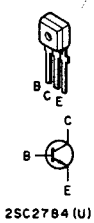
NJM78M12



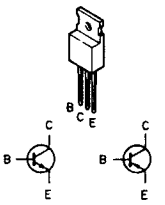
NPN TRANSISTOR PNP TRANSISTOR



2SD471 (K)



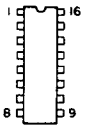
2SC2784 (U)



2SD313 (E) 2SB507 (D or E)

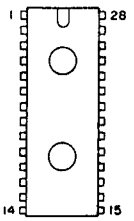
NJM4558D

TOP VIEW



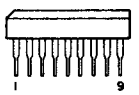
TD62504P

TOP VIEW



TEA0665

SIDE VIEW

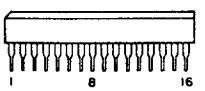


TD62554S

TOP VIEW

NJM4558D

SIDE VIEW



TA7405P

IED RERSONNEL ONLY –
BE TREATED AS A NON-WARRANTY

±5% 1/4W
±5% 1/6W

)0 50V

ramic condenser,

C*** : ELECTROLY CAP. (≠) / FILM CAP. (=)

(1) EA - - - - - - 10, Electrolytic condenser, one-way lead type, tolerance ±20%

(2) DF15 - - - 350, Plastic film condenser, one-way type, Mylar, ±5% 50V

*In case of ordering the common parts, please establish the correct parts number of 10 figures by the procedure "ASSIGNMENT OF COMMON PARTS CODES"